



**Skilled  
Trades**  
Ontario

**Métiers  
spécialisés**  
Ontario

Apprenticeship  
Training Standard  
Logbook

**General Machinist**

429A

2016

# Apprenticeship Training Standard

The Apprenticeship Training Standard or herein after referred to as “Logbook” is a document issued to Apprentices who sign a Registered Training Agreement in the Province of Ontario as an official record of training. It is to be used by the Apprentice and Sponsor/trainer to guide the process of skills development in a particular trade.

## Training As An Apprentice

- ✓ Ensure you, your sponsor, and your witness sign a Training Agreement with the Ministry of Labour, Immigration, Training and Skills Development. Once it is registered, you will receive a copy of the registered Training Agreement for your records.
- ✓ Notify the local Service Delivery Office **immediately** if any changes to contact information or training agreement, especially if you change sponsors.
- ✓ Review the Logbook regularly with your trainer and sponsor to discuss your progress, ask questions, seek feedback and have the trainer **sign-off on competencies**
- ✓ Keep an accurate record of the hours you work.
- ✓ Attend classroom training when it is offered.
- ✓ Apply for the financial incentives for which you are eligible.



## Completing Your Logbook

- ✓ **Complete the Sponsor Record Form** – A form must be completed for each Sponsor/Trainer used during your apprenticeship.
- ✓ **Confirm Skill Sign-off is Complete**
  - **You and your trainer** sign-off each required skill to confirm that you have demonstrated competency in that skill.
  - Shaded boxes in your Logbook mean the skills are optional and do not have to be confirmed by your trainer or sponsor. However, you are encouraged to complete them as part of your training.
- ✓ **Confirm Skill Set Sign-off is Complete**
  - After you and your trainer have signed-off all the required skills in a skill set, your sponsor signs the signature box on the form in **Appendix C – “Skill Set Completion for Sponsors”** to confirm your completion of all competencies within each skill set.

This document is the property of the apprentice named inside and represents the official record of your training. For information about completing your apprenticeship, see inside of back cover.



Apprentice Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Trade: \_\_\_\_\_

**Training Agreement # (for Compulsory and Non-Compulsory trades):**

**STO Account No. (for Compulsory trades only):**

**This document is the property of the Apprentice named herein and represents the official record of their training.**

**If you have questions about the use of this Logbook or about your Apprenticeship program, contact your local Service Delivery Office (see Appendix D in this book) or the Employment Ontario hotline at: 1-800-387-5656.**

# Apprenticeship Pathway to a Certificate of Qualification

Phase 1: Registration

Submit Application for Apprenticeship Training through the on-line portal or to local Service Delivery Office

For on-line portal, please follow instructions for registration. You will need to create a *My Ontario* account to access online services.

Training agreement signed and registered by both apprentice and sponsor

Access your Apprenticeship Training Standard Logbook\*\*  
skilledtradesontario.ca/about-trades/trades-information

\*\* This is the official record of your training progress. You are responsible for keeping it up-to-date.

Complete on-the-job training

*Demonstrate and receive sign-off on the competencies/skills in your Apprenticeship Training Standard Logbook*

Complete in-school training

*Attend and complete the in-class training set out in the Curriculum Training Standard*

Apprentices eligible to apply for apprenticeship incentive grants (Red Seal trades) and loans.

Review and finalize your logbook with your sponsor

Submit proof of apprenticeship completion via email, in-person or digital portal

Your Apprenticeship Training Standard Logbook details completion requirements. Submit the following:

- completed Apprenticeship Training Standard Logbook with signatures
- proof of hours

Certificate of Apprenticeship is issued

Phase 2: Apprenticeship

Trades without examination

**CofA is the final step of the program**

Trades with examination (compulsory and non-compulsory trades)\*

Provisional Certificate of Qualification issued for a 12 month term

To prepare for the CofQ examination download the Provincial and/or Red Seal Exam preparation guides.

Make payment for your Certificate of Qualification examination

Call to make a payment (647-847-3000 or 1-855-299-0028)

Schedule a date to write your Examination

To schedule your examination, contact your local Service Delivery Office.

Pass Certificate of Qualification examination

Apprentices eligible to apply for Apprenticeship Completion Grant (Red Seal trades) or Apprentice Completion Bonus (non-Red Seal)

Certificate of Qualification is issued

Upon completion, Sponsors may be eligible for Apprenticeship grants, incentives, bonuses or tax credits

Phase 3: Certification

\* For a list of trades subject to a certification examination, visit: [skilledtradesontario.ca](http://skilledtradesontario.ca)

## **Table of Contents**

Foreword: Purpose, Terms and Conditions of the registered Training Agreement.....	1
Trade Specific Resources and Links .....	2
Methodology-Standard Development .....	2
Introduction to the Logbook.....	3
Roles and Responsibilities .....	4
Roles and Responsibilities of the Apprentice .....	5
Roles and Responsibilities of Sponsors and Trainers .....	6
Health and Safety.....	7
Apprenticeship Program Summary/Guidelines.....	10
Scope of Practice .....	10
Program Guidelines .....	10
Program Requirements .....	11
Compulsory and Non-compulsory Classification .....	11
Skills for Success Summary .....	11
Standard of Performance .....	12
Training the Apprentice - Tips for Apprentices, Sponsors and Trainers .....	13
Notice of Collection of Personal Information .....	15
List of Trainers .....	16
Skill Sets .....	19
U5230.0 Protect Self and Others.....	17
U5231.0 Plan and Prepare for Machining Job.....	22
U5232.0 Perform Work-In-Process Dimensional or Surface Verification.....	28
U5233.0 Perform Benchwork .....	32
U5234.0 Perform Power Sawing .....	37
U5235.0 Perform Drilling Using Drill Press/Machine .....	41
U5236.0 Perform Machine Grinding.....	47
U5237.0 Perform Lathe Work.....	52
U5238.0 Perform Milling.....	60
U5239.0 Perform Computerized Numerically Controlled (CNC) Machining ....	65
Definitions .....	71
Apprentice .....	71

Ready to Write Your Exam?.....	74
Instructions for Recording a Change in Sponsor.....	75
Sponsor Record #1 .....	76
Change of Sponsor Record #2.....	77
Change of Sponsor Record #3.....	78
Change of Sponsor Record #4.....	79
Appendix A — Instructions for Apprenticeship Program Completion .....	80
Appendix B — Apprentice Completion Form.....	81
Appendix C — Skill Set Completion for Sponsors.....	82
Appendix D — Local Service Delivery Offices in Ontario .....	83
Competency Analysis Profile (CAP) Chart .....	i

**Please Note:** This Standard has been revised to reflect the visual identity of Skilled Trades Ontario (STO) which replaced the Ontario College of Trades on January 1, 2022. The content of this Standard may refer to the former organization; however, all trade specific information or content remains relevant and accurate based on the original date of publishing.

Please refer to STO’s website: [skilledtradesontario.ca](http://skilledtradesontario.ca) for the most accurate and up to date information. For information about BOSTA and its regulations, please visit [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#).

Any updates to this publication are available on-line; to download this document in PDF format, please follow the link: [Skilled Trades Ontario.ca](http://Skilled Trades Ontario.ca).

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*Maintained with transfer to Skilled Trades Ontario 2016 (V100)*

## **Foreword: Purpose, Terms and Conditions of the registered Training Agreement**

### **Purpose:**

- Prior to starting official apprenticeship activities, the apprentice, sponsor and a witness are required to sign a Training Agreement.
- The Training Agreement that you have signed is an important legal document that outlines your responsibilities as an apprentice and the responsibilities of your sponsor.
- Once registered, this training agreement (or contract) marks the start of your formal agreement between the apprentice, the sponsor and the Ministry.
- For compulsory trades, the apprenticeship registration document must be accessible when working.

### **The Apprentice agrees:**

- **To inform the local Service Delivery Office of any change to your contact information or change in sponsor within 7 days;**
- To follow the Sponsor's and Trainer's lawful instructions and make every effort to acquire the skills identified in the Logbook for the Trade which is part of the apprenticeship program established by Skilled Trades Ontario for the trade;
- To obtain written verification from the Sponsor and the Trainer(s) that the requirements in the Logbook for the trade have been met.
- When you receive an "Offer of Classroom Training", confirm your attendance by following the instructions in the offer. Failure to do so may result in losing your opportunity to attend school which delays the completion of your apprenticeship.

### **The Sponsor agrees:**

- To ensure that the Apprentice is provided with the training required as part of the apprenticeship program established by Skilled Trades Ontario for this trade;
- To review the progress of training with the Apprentice, and with the Trainer(s) where the Sponsor and the Trainer are not the same party.
- Release your apprentice from work to attend in-school training without penalty to the apprentice.
- To maintain the journeyman/apprentice ratio for your trade, if applicable.
- To monitor their apprentice(s) progress
- To ensure that the Trainer(s) verifies, in writing, when each skill identified in the Logbook for the trade has been successfully completed by the Apprentice;
- To contact the Ministry should any changes in your capacity to train, your contact information, or your apprentice's status in the program change.

## Trade Specific Resources and Links

Trade Specific Resource	Link
Red Seal Program	<a href="http://red-seal.ca">red-seal.ca</a>
Apprenticeship in Ontario	<a href="http://ontario.ca/page/apprenticeship-ontario">ontario.ca/page/apprenticeship-ontario</a>
Employment Ontario	<a href="http://employmentontario.ca">employmentontario.ca</a>
Service Canada	<a href="http://servicecanada.gc.ca">servicecanada.gc.ca</a>
<i>Building Opportunities in the Skilled Trades Act, 2021</i>	<a href="http://ontario.ca">Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)</a>
Ministry of Labour, Immigration, Training and Skills Development	<a href="http://ontario.ca">Ministry of Labour, Immigration, Training and Skills Development   ontario.ca</a>
Exam Preparation Guide	<a href="http://ontario.ca">Exam Resources – Skilled Trades Ontario</a>
Skills Zone (Ontario Skills Passport)	<a href="http://www.skillszone.ca/">http://www.skillszone.ca/</a>

*\*Please note, all website addresses are current at time of printing*

## Methodology-Standard Development

A standard is developed with a broad group of trade representatives who form the initial working group. This includes subject matter experts/ tradespeople/ instructors and employers from a cross section of the sector/industry, with varying years of work experience in the field. The working group reviews, develops and recommends revision to the content of the standard. Their role also involves harmonizing and updating other supporting content for the product.

An essential part of the standard development is the validation process. This is the opportunity to have a broader representation of the sector provide feedback on the content of draft standard. This process is conducted in various ways and may include sending out a survey or the draft document (or both) directly to the sector. The comments received are reviewed by the working group and revisions are made as required based on a consensus model.



## Introduction to the Logbook

This “on-the job” Logbook is the training standard for General Machinist 429A and was developed by Skilled Trades Ontario in consultation with representatives from industry. It identifies all the skills associated with and required to learn the trade.

The Logbook is divided into skill sets, which are further divided into skills. These skill sets and skills are written in statements that describe what the Apprentice must perform and to what standard, in order to be considered competent in that skill.

The successful performance of these skills is tracked in the Logbook. Once achieved, this skills’ sign-off, along with the completion of in-school program requirements or equivalent, is how the apprenticeship program is completed and apprentices receive a Certificate of Apprenticeship.

The Sponsor/trainer and Apprentice are required to sign-off and date each skill after the Apprentice has demonstrated proficiency in these skills. However, if a skill is shaded, it is optional and does not need to be signed-off, though it has been defined as a part of the scope of practice for the trade.

All practices described in this standard must be performed by the apprentice according to the specific criteria identified. In general, the standard of performance for this trade is to be performed according to all applicable jurisdictional codes and standards and all health and safety standards must be respected and observed.

All skills within the Apprenticeship Training Standard are to be performed, as applicable, according to and in compliance with the following:

- Occupational Health and Safety Legislation and Regulations;
- Other applicable legislation, regulation, codes and standards;
- Industry best practices;
- Company policies and procedures.

The information presented in this standard is, to the best of our knowledge, current at time of printing and is intended for general application. Please refer to the Skilled Trades Ontario website for the most accurate and up-to-date information: [skilledtradesontario.ca](http://skilledtradesontario.ca)

## Roles and Responsibilities

Under the [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#)

**Skilled Trades Ontario (STO)** is responsible for:

- Establishing and maintaining qualifications;
- Establishing Apprenticeship Programs and other training programs including training Standards, curriculum standards and certifying examinations;
- Issuing certificates for the purposes of this Act such as Certificates of Qualification;
- Maintaining a Public Registry for compulsory trades [skilledtradesontario.ca/public-register/](https://skilledtradesontario.ca/public-register/);
- Determining whether the experience and qualifications obtained by applicants for a certificate of qualification who do not complete an apprenticeship are equivalent to those received through completing an apprenticeship (Trade Equivalency Assessments)
- Promoting the skilled trades and conducting research.
- Conducting research and evaluate whether a trade should be prescribed as a trade for the purposes of this Act and to make recommendations on these matters to the Minister.

**Ministry of Labour, Immigration, Training and Skills Development (MLITSD)**

is responsible for:

- Classifying trades as compulsory trades;
- Prescribing scopes of practice for trades;
- Approving which persons may provide in-class training for apprenticeship programs (TDAs);
- Registering Training Agreements;
- Providing those who successfully complete an apprenticeship program with a certificate of apprenticeship (CofA);
- Administering examinations, including certifying examinations;
- Promoting the skilled trades and conducting research;
- Exercising such other powers and perform such other duties and functions as are provided for in this Act or the regulations.

***For any matter related to your registered Training Agreement or completing your apprenticeship, you must contact your local Service Delivery Office.***

## Roles and Responsibilities of the Apprentice

An Apprentice is an individual who has entered into a registered Training Agreement (refer to Foreword: *“Purpose, Terms and Conditions of TA” page 1*) with a Sponsor to receive training in a trade as part of an apprenticeship program established by Skilled Trades Ontario. As an Apprentice, you have certain roles and responsibilities to follow throughout your apprenticeship training:

1. As an Apprentice, you signed the Training Agreement and have entered into a contract with the Ministry of Labour, Immigration, Training and Skills Development and your Sponsor.
2. If you are registered as an Apprentice in a compulsory trade, your name will automatically appear in the Skilled Trades Ontario Public Register.
3. You are responsible for informing the staff at your local Service Delivery Office regarding changes to the following:
  - Your Sponsor’s address;
  - Your name and address; and/or,
  - Your Sponsor, including starting employment with a new Sponsor
4. As an Apprentice, you are responsible for completing skills or skill sets in this Logbook (as detailed in the *“Eligibility for Apprenticeship Program Completion”* section of this document) and ensuring that they are dated and signed by both you and your Trainer.
5. Once you have demonstrated competency in all the mandatory skills and received a sign off on each skill by your sponsor/trainer, you must have the Skill Set Completion Form completed and signed by your current Sponsor.
6. Submit your Logbook to your local Service Delivery Office.
7. Present your Apprentice Completion Form (Please refer to Appendix B), along with your authorized Logbook to your local Service Delivery Office.

## Roles and Responsibilities of Sponsors and Trainers

**Sponsors** are responsible for ensuring all terms are met as per the registered Training Agreement. They are named on the registered Training Agreement as the entity responsible for ensuring Apprentices receive the training required as part of an apprenticeship program. As a signatory to this agreement, they are designated as the 'Signing Authority' for the Apprentice's Skill Set Completion Form and are required to attest to successful achievement by signing the appropriate box at the completion of each skill set. Some sponsors may also act as the Trainer.

A **Trainer** is an individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice.

In compulsory trades, a Trainer must hold a valid Certificate of Qualification and be registered with Skilled Trades Ontario.

In non-compulsory trades, a Trainer is an individual who holds one of the following:

- A Certificate of Qualification;
- A Certificate of Apprenticeship in the trade; or,
- Has completed both the workplace-based training (competencies and/or hours as applicable) and classroom training components of the trade's apprenticeship program; or,
- Has workplace experience equivalent to the apprenticeship program) and has the skills outlined in the Logbook.

Competency means being able to perform to the required standard (please refer to "*Introduction to the Logbook*"). Trainers/Sponsors and Apprentices are required to sign-off and date the skills in the Logbook following each successful acquisition. The Logbook forms a record of this achievement.

The Trainer must provide their signature based on their assessment and professional judgment that the apprentice is competent in the skills described above. The Trainer's signature is not a general warranty or guarantee of the apprentice's future conduct.

Sponsors participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement by signing the appropriate box included at the end of each skill set.

## Health and Safety

Safe working procedures and conditions, accident prevention and the preservation of health are of primary importance for apprenticeship programs in Ontario. These responsibilities are shared and require the joint efforts of government, sponsors, employers, supervisors, workers, apprentices and the public to achieve the goal of making Ontario's workplaces safe and healthy.

The [Occupational Health and Safety Act](#) (OHSA) provides us with the legal framework and the tools to do this. It sets out the rights and duties of all parties in the workplace, placing ultimate responsibility on the employer for the health and safety of workers (in this case apprentices) by ensuring procedures, controls, and training are established for dealing with workplace hazards. Therefore, it is imperative that all parties become aware of circumstances that may lead to injury, illness or harm. Safe learning experiences and environments can be created by controlling the variables and behaviours that may contribute to or cause an accident injury or illness.

A sponsor who is not the employer is reminded that the employer has legal responsibilities respecting health and safety over the apprentice who is their worker. The sponsor should encourage safe work habits and adherence to the employer's occupational health and safety requirements for the workplace.

It is generally recognized that a positive attitude about safety in partnership with health and safety competency contributes to an accident-free environment. Everyone will benefit as a result of a healthy attitude towards the prevention of accidents.

Workers and apprentices can be exposed to a multitude of hazards and, therefore, should be familiar with the Occupational Health and Safety Act and regulations.

### **The Internal Responsibility System:**

One of the primary purposes of the Occupational Health and Safety Act (OHSA) is to facilitate a strong Internal Responsibility System (IRS) in the workplace. To this end, the OHSA lays out the duties of employers, supervisors, workers, apprentices, constructors and workplace owners.

Workplace parties' compliance with their respective statutory duties is essential to the establishment of a strong IRS in the workplace.

Simply put, the IRS means that everyone in the workplace has a role to play in keeping workplaces safe and healthy. Workers and apprentices in the workplace who see a health and safety problem such as a hazard or contravention of the OHSA in the workplace have a statutory duty to report the situation to the employer or a supervisor. Employers and supervisors are, in turn, required to address those situations and acquaint workers with any hazard in the work that they do.

The IRS helps support a safe and healthy workplace. In addition to the workplace parties' compliance with their legal duties, the IRS is further supported by well-defined health and safety policies and programs, including the design, control, monitoring and supervision of the work being performed.

### **Roles and Responsibilities under the Occupational Health and Safety Act**

#### **Employer's Responsibilities include but are not limited to the following:**

- Instruct, inform and supervise workers and apprentices to protect their health and safety.
- Appoint competent persons as supervisors.
- Inform a worker, apprentice, or a person in authority, about any hazard in the workplace and train them in the handling, storage, use, disposal and transport of any equipment, substances, tools, material, etc.
- Take every precaution reasonable in the circumstances for the protection of a worker/apprentice.
- In workplaces in which more than five workers are regularly employed, prepare and post a written occupational health and safety policy and set up and maintain a program to implement it.
- Prepare and post policies with respect to workplace violence and workplace harassment and develop programs supporting workplace harassment and workplace violence policies.
- Ensure knowledge of applicable legislative, regulatory, codes and standards so requirements to be followed are clear to all workers/apprentices.

#### **Trainer/Supervisor Responsibilities include but are not limited to the following:**

- Ensure that a worker or apprentice works in compliance with the Act and regulations.
- Ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker or apprentice.
- Advise a worker/apprentice of any potential or actual health or safety dangers known by the supervisor.
- Take every precaution reasonable in the circumstances for the protection of workers.

#### **Worker/Apprentice Responsibilities include but are not limited to the following:**

- Work in compliance with the Act and regulations.
- Use or wear any equipment, protective devices or clothing required by the employer.
- Report to the employer or supervisor any known missing or defective equipment or protective device that may endanger the worker or another worker.
- Report any hazard or contravention of the Act or regulations to the employer or supervisor.
- Not remove or make ineffective any protective device required by the employer or by the regulations.
- Not use or operate any equipment or work in a way that may endanger any worker.

### **The Three Rights of Workers/Apprentices**

The OHSA gives workers and apprentices three important rights:

1. The right to know about hazards in their work and get information, supervision and instruction to protect their health and safety on the job.
2. The right to participate in identifying and solving workplace health and safety problems either through a health and safety representative or a worker member of a joint health and safety committee.
3. The right to refuse work that they believe is dangerous to their health and safety or that of any other worker in the workplace.

### **Ministry of Labour, Immigration, Training and Skills Development**

The Ministry of Labour, Immigration, Training and Skills Development conducts periodic inspections of workplaces to ensure that safety acts and regulations are being followed. Please direct any questions to the Occupational Health and Safety Contact Centre at 1-877-202-0008.

## Apprenticeship Program Summary/Guidelines

### Scope of Practice

The Scope of Practice for the trade of General Machinist is set out in section 57 of Ontario Regulation 875/21 under BOSTA and reads as follows:

57. The scope of practice for the trade of general machinist includes the following:
1. Reading and interpreting complex engineering drawings and work process documentation.
  2. Cutting, shaping and finishing metal to make precision machine parts.
  3. Building precision parts using metal cutting machines and equipment, including saws, drills, grinders, lathes and mills.
  4. Performing work-in-process measuring and checking using specialized and precision tools and equipment.

\*While the Logbook draws on the scope of practice regulation (Section 57 of Ontario Regulation 875/21 under BOSTA). The Logbook does not purport to add to or modify the scope of practice as provided in regulation. \*

### Program Guidelines

#### On-the-Job Training Duration

Industry has identified 7280 hours as the benchmark necessary for any Apprentice to become competent in the skills required. There may be circumstances in which the duration varies from this guideline.

#### In-Class Training Duration

Industry has identified 720 hours of in-school training as the duration necessary for an Apprentice to complete the in-school curriculum for this program.

#### Total Training Hours

8000 hours

#### Journeyman to Apprentice Ratio

#### Industry Recommended Ratios:

While some of the trades regulated under BOSTA are subject to Journeyman to Apprentice ratios set out in regulation, this trade is not one of them. Instead, **industry has recommended a Journeyman to Apprentice ratio guideline of 1 Journeyman (or individual who is deemed equivalent to a journeyman) to 1 Apprentice** as the ratio necessary for an Apprentice to be properly trained on the job in this program.



## Program Requirements

### Compulsory and Non-compulsory Classification

Regulations under the *Building Opportunities in the Skilled Trades Act, 2021*, classify each trade as either “compulsory” or non-compulsory.” This trade is non-compulsory.

It is the responsibility of an Apprentice to maintain a training record in the form of a Logbook. The Sponsor and Trainer are required to sign-off when competencies in the trade are achieved.

### Skills for Success Summary

Skills for Success are needed in a quickly changing world for work, learning and life. They are foundational for building other skills and important for effective social interaction. Everyone benefits from having these skills as they help individuals get a job, progress at their current job and change jobs. They also help individuals become active members of their community and succeed in learning.

Through extensive research and consultations, the Government of Canada launched the new Skills for Success model renewing the previous Essential Skills framework to better reflect the needs of the current and future labour market.

The occupational specific Essential Skills profiles are available online. These will be updated over time to align with the new Skills for Success model found here: [Skills for Success model](#)

## **Standard of Performance**

In general, the standard of performance for the trade of General Machinist are to be performed, as applicable, according to and in compliance with the following:

Industry Safety Standards which are based upon:

- Occupational Health and Safety Legislation and Regulations;
- Jurisdictional legislation and regulations, codes and standards (municipal bylaws etc.)
- Company policies and procedures
- All applicable manufacturers specifications and engineering specifications

## Training the Apprentice - Tips for Apprentices, Sponsors and Trainers

### Tips for Apprentices

Remember, it takes time to learn. The following is a list of additional tips and tools to help make the most of your apprenticeship training:

- Practice safe work procedures early to create good habits;
- Use your Logbook as a journal to keep track of the skills you have achieved;
- Review your training plan with your Training Consultant, Trainer, or Sponsor;
- Discuss your training needs with your Trainer and/or Sponsor;
- Listen to the suggestions of your Trainer;
- Ask your Trainer questions if you are unsure of any skill you need to perform or any tools or equipment you need to use to perform your duties;
- Show enthusiasm and develop good work habits; and,
- Upon demonstration of competency, ensure that you and your Trainer sign-off the individual skills.

***To get the most from this mentoring experience, request exposure to the full scope of the trade; meet regularly with your Sponsor/Trainer to discuss your progress, ask questions and seek feedback.***

### Tips for Sponsors

- Select Trainers with good communication skills and who work well with others;
- Ensure that the Apprentice always works under the direction of or has access to a qualified Trainer;
- Encourage Trainers to take upgrading courses (e.g. Train the Trainer, Mentor, Coach, etc.);
- Set out clear expectations and involve both the Apprentice and Trainer in developing the training plan
- Encourage safe work habits;
- Allow time for the Trainer to train and demonstrate skills to the Apprentice;
- Provide opportunities and time for the Apprentice to learn the trade;
- Ensure that the Apprentice receives the varied on-the-job trade training experience outlined in this document;
- Recognize good performance;
- Observe frequently;
- Provide constructive feedback and conduct regular performance reviews involving the Apprentice and Trainer;
- Use the Logbook as a monitoring tool and a part of regular performance evaluations; and,
- Complete the Skill Set Completion Form once the Apprentice has demonstrated competency in the skills.

- The detailed content listed for each skill is not intended to represent an inclusive list; rather, it is included to illustrate the intended direction for the skill acquisition.

### **Tips for Trainers**

Trainers are responsible for ensuring the Apprentice is developing the skills outlined in this document. Here is a list of tips and tools to help Trainers in their supervision of Apprentices:

- Demonstrate model safe work habits;
- Provide opportunities and time for the Apprentice to learn the trade;
- Treat Apprentices fairly and with respect;
- Review the Logbook with the Apprentice and develop a training plan;
- Set out clear expectations and recognize good performance;
- Expose Apprentices to the full scope of the trade by providing training on the skills outlined in this document;
- Encourage and respond to all questions;
- Be patient;
- Explain, show and demonstrate the skill;
- **Meet regularly with the Apprentice to discuss the apprentice's progress**
- Provide continuous feedback;
- Sign-off skills when your Apprentice demonstrates competency, and,
- Use the Logbook as a guide to evaluate competence in each skill area. By using the Logbook, Trainers will be able to guide the process to and assist Apprentices to develop skills outlined in this document.

***The best mentoring experience is when an Apprentice is given as much training/exposure to the full scope of the trade as possible. If this is not possible, help them to determine other ways this may be possible.***

## Notice of Collection of Personal Information

1. At any time during your apprenticeship training, you may be required to show this Logbook to the local Service Delivery Office. You will be required to submit the signed Apprenticeship Completion form to the Service Delivery Office in order to complete your program. The Service Delivery Office will use your personal information to administer and finance Ontario's apprenticeship training system, including confirming your completion and issuing your Certificate of Apprenticeship.
2. The Service Delivery Office will disclose information about your program completion and your Certificate of Apprenticeship to Skilled Trades Ontario, as it is necessary for Skilled Trades Ontario to carry out its responsibilities.
3. Your personal information is collected, used and disclosed by the Ministry of Labour, Immigration, Training and Skills Development under the authority of the *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*.
4. Questions about the collection, use and disclosure of your personal information by the Ministry may be addressed to the:

Manager, Employment Ontario Contact Centre  
Ministry of Labour, Immigration, Training and Skills Development  
33 Bloor St. E, 2nd floor, Toronto, Ontario M7A 2S3  
Toll-free: 1-800-387-5656; Toronto: 416-326-5656  
TTY: 1-866-533-6339 or 416-325-4084



**5230.0 Protect Self and Others**

**General Performance Objective**

**Protect self and others by:** identifying health and safety hazards; identifying and locating workplace safety features; wearing, adjusting, and maintaining protective clothing, equipment, and respiratory protectors; practicing safe work habits, industrial hygiene, and good housekeeping; handling designated substances; following fire procedures and first aid procedures; operating safety equipment, lifting devices, and material handling equipment; reporting injuries; conducting pre-operational check of equipment; and, locking out equipment.

**Skills**

**5230.01 Identify health and safety hazards in the workplace,** so that the potential for personal injury, damage to equipment or the environment is prevented, corrective action is taken and hazards are reported, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5230.02 Identify and locate workplace safety features,** such as fire extinguishers, fire alarms, muster points, power cut-offs and emergency exits, so that the potential for personal injury, damage to equipment or the environment is prevented, corrective action is taken and hazards are reported, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.03**     **Wear, adjust, and maintain personal protective equipment** such as eye, ear, hand, and foot protectors to ensure correct fit and optimum protection for the wearer and the task being performed, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.04**     **Wear, adjust, and maintain respiratory protectors** to ensure correct fit and optimum protection, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.05**     **Practice safe work habits** by staying outside guards and barricades, wearing required clothing (not loose or torn), confining long hair, and removing jewellery, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5230.06 Follow fire procedures** such as locating and assessing the severity of the fire, taking appropriate action, suppressing minor fire, activating alarm, hot work permitting and reporting, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.07 Operate emergency safety equipment** such as fire extinguishers, respirators, barrier creams, automatic external defibrillators (AED) and fire blankets, ensuring that procedures are carried out in a safe and efficient manner, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.08 Practice industrial hygiene** by wearing required clothing and using eye wash or showering to avoid contamination or injury, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.09 Practice housekeeping in the workplace** by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.10 Conduct pre-operational check of equipment** by checking that guards and safety devices are in place, secured, and not damaged, by checking machine for damaged or worn parts and frayed wires, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.11 Report injuries** to supervisor or first aid personnel promptly and clearly, ensuring that the injured person is attended to and information is reported accurately, so that future recurrence of similar accidents is prevented, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.12 Follow procedures for initiating first aid** to treat conditions such as sudden illness, burns, cuts, abrasions, sprains, chemical inhalations, falls, and contaminants in eyes, so that the condition of the victim is stabilized and prepared for further first aid treatment, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.13 Lock out mechanical equipment to ensure zero energy** for repair or maintenance by shutting down and tagging machine or manufacturing process to ensure that no materials can enter the equipment being repaired or maintained, no damage is caused to the machine, and accidents are prevented, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.14 Handle designated substances** using specified handling and storage equipment, so that the operator is protected from injury, the environment from contamination, and safe procedures are followed, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5230.15**     **Inspect and operate lifting equipment** such as hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, or equipment, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**5231.0**     **Plan and Prepare for Machining Job**

**General Performance Objective**

**Plan and prepare for machining job by:** reading and interpreting working drawings; performing calculations; reading and interpreting work-process documentation; verifying workpiece material; identifying and selecting cutting fluids, machines, machine controls and systems, tooling, measuring or checking devices, work-holding devices, and lifting or rigging equipment; identifying and preparing cutting tools; selecting and calibrating measuring instruments and checking devices, selecting speeds and feeds; laying out features of the working drawing; picking up datum/starting position; and, communicating with co-workers.

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**Skills**

**5231.01**     **Read and interpret working drawings** to identify dimensions, tolerances and geometric dimensioning and tolerancing (GD & T), machine surface designations and allowances, type and features of workpiece material, and any other information needed to plan the machining job, in accordance with company standards/procedures and job documentation.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5231.02 Perform calculations for machining operations** such as determining speeds and feeds, calculating cutting tool positions, checking workpiece alignments, and calculating dimensions to be measured and verified, using both Metric and Imperial System, so that all required specifications and parameters are correctly determined to machine the workpiece, in accordance with working drawings, job specifications and Machinery's Handbook.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.03 Read and interpret work-process documentation** to identify required machines, job operation, sequencing of job, method of machining and set-ups, and any other information needed to plan the machining job, in accordance with company standards/procedures and job documentation.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.04**     **Verify workpiece material** for correct size and type by checking colour codes, lettering, or numerical stamps to ensure that the workpiece selected, in accordance with working drawings and job instruction sheets.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.05**     **Identify and select cutting fluids** using manuals, charts, working drawings, and material safety data sheets, ensuring that the cutting fluid selected is the correct one to maximize machining without damage to workpiece, cutting tool, or machine, in accordance with manufacturer's and/or company specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.06**     **Identify and select machines** such as conventional and numerically controlled saws, drills, lathes, grinders, and vertical or horizontal mills, using information from working drawings and work process documentation, to ensure that the machine selected is the correct one for the application, in accordance with manufacturer's and/or company specifications. .

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.07 Identify and check machine controls and systems** such as locating and identifying switches, buttons, levers, controls, and safety devices, to ensure that all controls are operational and functioning, in accordance with manufacturer’s specifications and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.08 Identify and select tooling** required to cut the workpiece by using information in working drawings and job instructions, to ensure that tooling selected is the correct size and type for the application, in accordance with manufacturer’s and/or company specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.09 Identify and prepare cutting tools** by sharpening or replacing tools so that the cutting shape and angle are prepared for optimum cutting and personal safety, in accordance with manufacturer’s specifications, Machinery’s Handbook, working drawings, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.10**     **Select and calibrate measuring instruments and checking devices** such as micrometers, verniers, bore gauge, go/no go gauge, dial test indicator, ensuring that instruments and devices selected are capable of measuring to obtain the dimensions and tolerances, in accordance to working drawings, job specifications, and process layout.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.11**     **Select machine speeds and feeds** using speed and feed charts and in accordance with size, type, and hardness of workpiece materials and cutting tool material, so that the machines perform optimum cutting without damage to workpiece, cutting tools, or machines and ensures personal safety, in accordance with manufacturer's specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.12**     **Lay out features of working drawings** on to the workpiece using precision measuring instruments and layout equipment such as scribe, center punch, vernier height gauge, surface plate, combination set, and layout medium or dyes, so that the completed layout, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5231.13**     **Select work-holding devices** such as vises, clamps, jigs, chucks, face plates, centers, steady rest, tailstocks, and mandrels, ensuring that the work-holding device selected is the correct one to safely and securely position and locate the workpiece in the machine, in accordance with job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.14**     **Pick up datum/starting position** using layout lines, tooling balls, or edge of the part and required tools such as pointer, wiggler, indicator, and edge finder to identify and locate the datum/starting position, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.15**     **Select and inspect lifting and rigging equipment** such as hoists, overhead cranes, chain falls, lift pins, cables, eye bolts, and chains, ensuring that equipment is selected, in accordance with company standards/procedures for safe and handling/moving of materials and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5231.16**     **Communicate with co-workers** to identify previous job operations, availability of tools, parts, and machinery, scheduling requirements, and any other information needed to plan and prepare for the machining job, ensuring that the information communicated is accurate, in accordance with company standards and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**5232.0     Perform Work-In-Process Dimensional or Surface Verification**

**General Performance Objective**

**Perform work-in-process dimensional or surface verification by:** checking straight cuts, shapes, threads, holes, tapers, and hardness; maintaining material identification; deburring workpiece; checking surfaces; performing inspection; completing work documentation.

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**Skills**

**5232.01**     **Check straight cuts** by using precision measuring instruments such as micrometer, verniers, calipers, squares, straight edge, dial indicator, and surface comparator, to ensure that the accurate size, finish, parallelism, and squareness of straight cuts, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5232.02**     **Check shapes** by using precision measuring instruments and checking devices such as radius gauges, squares, surface comparator, and verniers, to ensure that the profile and finish of the cut shape, in accordance with working drawing and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.03**     **Check threads** by using precision measuring instruments, checking devices, and various checking methods such as 3-wire method, thread micrometer, thread gauge, and plug or ring gauges, to ensure that the accuracy of pitch, thread geometry, and size of cut threads, in accordance with the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.04**     **Check holes** by using precision measuring instruments and checking devices such as dial indicators, inside micrometers, bore gauges, plug/pin gauges, telescopic gauges, surface comparators, and verniers, to ensure that the accuracy of the diameter, depth, concentricity, position, and finish of cut holes, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.05 Check tapers** using precision measuring instruments and checking devices such as taper gauge, sine bar, micrometer, and vernier to ensure that the accuracy of the angle, taper/foot, and diameter of the cut tapers, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.06 Check hardness** using various types of hardness testers, manual methods and comparison charts to ensure that the hardness level of the workpiece materials, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.07 Maintain material identification** by marking or stamping workpiece and completing shop documentation, to facilitate traceability of the final product or work-in-process and to maintain inventory control, in accordance with company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.08      Deburr workpiece** using files, scrapers, emery cloth, sanders, and hand or pedestal grinders to remove excess material and to ensure safe handling, in accordance with working drawings, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.09      Check surfaces** using surface comparators such as profilometers and comparative gauges, to ensure that surface is finished, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.10      Perform inspection** using precision measuring instruments and checking devices such as inside, outside and depth micrometers, coordinate measuring machine (CMM), vernier height gauges or indicators, gauge blocks, and pin gauges to ensure that the tolerances and dimensions of the workpiece conform to the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5232.11 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets, to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.0 Perform Benchwork**

**General Performance Objective**

**Perform benchwork by:** hand-filing; hand-sawing; hand-drilling holes; hand-tapping threaded holes; hand-reaming; repairing threads; hand-finishing; hand broaching; operating heating equipment and refurbishing machines; practicing good housekeeping; and completing work documentation.

**Skills**

**5233.01 Hand-file** using files such as flat, needle, bastard, rat-tail, lathe, and half-round to remove excessive material so that workpiece is filed, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5233.02**     **Hand-saw** to cut workpiece to specified lengths, select blade for material type and thickness, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.03**     **Hand-drill holes** using power drill and drill bits so that the size of the drilled holes, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.04**     **Hand-thread** using taps, T-handle, tapping block and hand dies, so that the depth and squareness of threads, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.05 Hand-ream** using straight, spiral-fluted, tapered and line reamers to remove excessive material, so that the diameter and depth of reamed hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.06 Repair threads** using hand taps and dies, thread files, thread inserts, die nuts to repair or clean damaged threads, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.07 Hand-finish** by grinding, lapping and honing using pneumatic or electric hand grinders and hones to remove excess material, so that the workpiece is ground, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5233.08 Hand-broach** using broaches, plugs, shims and presses, so that the workpiece is broached to produce internal contour, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.09 Operate heating equipment** such as oxy-fuel torches, induction heaters and ovens, to facilitate cutting, bending, forming, fitting and repairing, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.10 Refurbish machines and components** by disassembling, repairing and reassembling using hand tools such as wrenches, hex keys, snap ring pliers, pullers, presses and adhesives/fasteners, in accordance with working drawings, equipment manuals and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.11 Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5233.12 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets, to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**5234.0 Perform Power Sawing**

**General Performance Objective**

**Perform power sawing by:** selecting and visually inspect blade; laying out features of the working drawings; locating and positioning workpiece in saw; selecting speeds and feeds; installing and test-running blade; checking cut-off; cutting shapes with vertical bandsaw; cutting squared and angled surfaces with a power cut-off saw; maintaining material identification; deburring workpiece; completing work documentation; practicing good housekeeping; and completing work documentation.

**Skills**

**5234.01 Select and visually inspect blade** by considering material type and thickness and power saw type, in accordance with manufacturer's or job specifications and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5234.02 Lay out features of working drawings** on to the workpiece using precision measuring instruments and layout equipment such as scribe, centre punch, vernier height gauge, surface plate, combination set, and layout medium or dyes, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.03**     **Locate and position workpiece in saw** to required operational clearances by setting up workholding devices such as clamps, nesting fixtures, vises, or roller supports, so that the workpiece is aligned, secured, and stable during sawing operations to ensure personal safety, in accordance with job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.04**     **Select speeds and feeds of saws** using charts, considering size, type, hardness of workpiece material and blade composition, so that the saw performs optimally without damage to workpiece, cutting tools, or machines, and ensuring personal safety, in accordance with manufacturer's specifications .

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.05**     **Install and test-run blade** to check alignments and movements, so that the blade is installed to make the required cut, prevent machine or blade damage, in accordance with company standards/procedures to ensure personal safety.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.06**     **Check cut-off** by measuring and checking a cut-off piece, to ensure that the angles, squareness, and length of the sawed piece conform to the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.07**     **Cut shapes using a vertical bandsaw** using required sawing sequences, speeds, feeds, and cutting fluids, so that the profile, size, and dimensions of the cut shapes conform to the working drawings, and job specifications in accordance with company procedures to ensure personal safety.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.08**     **Cut squared and angled surfaces using a power cut-off saw** using required sawing sequences, speeds, feeds, and cutting fluids, so that the squareness, angles, and size of cut surfaces conform to working drawings and job specifications, in accordance with company procedures to ensure personal safety.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.09**     **Maintain material identification** by marking or stamping workpiece and completing shop documentation, to facilitate traceability of the final product or work-in-process and to maintain inventory control, in accordance with company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.10**     **Deburr workpiece** using files, scrapers, emery cloth, sanders, and hand or pedestal grinders, to remove excess material and to ensure safe handling, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.11**     **Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5234.12 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets, to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that data is recorded accurately and clearly, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.0 Perform Drilling Using Drill Press/Machine**

**General Performance Objective**

**Perform drilling using drill press/machine by:** selecting drill/press machine tooling; preparing cutting tools; locating and positioning workpiece in drill press/machine; setting up tooling; selecting speeds and feeds of drill press/machine; center-drilling a layout punch mark; drilling, chamfering, reaming, machine threading, spotfacing, counterboring, and countersinking a hole and deburring workpiece; performing inspection; practicing good housekeeping; and completing work documentation.

**Skills**

**5235.01 Select drilling press/machine tooling** such as drill bits, centre drills, reamers, taps, counterbores, countersinks, and spotfaces to ensure that tooling is the correct size, shape, type, and grade for the application, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5235.02 Prepare cutting tools for drills** by sharpening or replacing tools, so that the cutting shape and angle is prepared for optimum cutting and personal safety, in accordance with job or manufacturer's specifications and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.03 Locate and position workpiece in drill press/machine** to required operational clearances by setting up and securing workpiece with workholding devices such as drilling vises, clamps, jigs, angle plates, and chucks, so that the workpiece is aligned, secured, and stable during drilling, in accordance with job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.04 Set up tooling in drill press/machine** to required operational alignments using holding devices such as drill chucks, taper sleeves, and tapping heads, to ensure that tooling is in position and held securely during drilling, in accordance with job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5235.05**     **Select speeds and feeds of drill press/machine** using charts and formulas, considering size, type, hardness of workpiece material and cutting tool composition so that the tool performs optimal cutting without damage to workpiece, cutting tools, or machines, and ensuring personal safety, in accordance with manufacturer’s specifications, company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.06**     **Centre-drill a layout punch mark** using a drill press/machine, chuck, centre-drill, and cutting fluid, so that the punch mark is drilled, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.07**     **Drill a hole** using a drill press/machine, drill bits, and cutting fluids, so that the size and depth of drilled hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.08 Chamfer a hole** using a drill press/machine, countersinks, and cutting fluids to break sharp edges, so that the chamfered hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.09 Ream a hole** using a drill press/machine, machine reamers, and cutting fluids, so that the diameter of the reamed hole, in accordance with working drawing or job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.10 Machine thread a hole** using a drill press/machine, tapping heads, taps, and cutting fluids, so that the depth, size, pitch and the threaded depth of the hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.11 Spotface a hole** using a drill press/machine, spot-facing tools, and cutting fluids so that the depth and diameter of the spot-faced hole, in accordance with working drawings or job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.12 Counterbore a hole** using a drill press/machine, counter-boring tools, and cutting fluids, so that the depth and diameter of the counter-bored hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.13 Countersink a hole** using a drill press/machine, countersinks, and cutting fluids, so that the depth, diameter and angle of the countersink, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.14**     **Deburr workpiece** using files, scrapers, emery cloth, sanders, and hand or pedestal grinders, to remove excess material and to ensure safe handling, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.15**     **Perform inspection** using precision measuring instruments and checking devices such as inside and depth micrometers, telescoping gauges, vernier depth gauges or indicators, and pin gauges, to ensure that the tolerances and dimensions of the drilled workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.16**     **Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5235.17 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately and clearly, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**5236.0 Perform Machine Grinding**

**General Performance Objective**

**Perform machine grinding by:** selecting grinding wheels; selecting feed rate and depth of cut; checking condition of grinding wheel; dressing grinding wheel; locating and positioning workpiece; surface grinding workpiece; honing holes; lapping workpiece; grinding inside and outside diameters; grinding tools and cutters; checking ground surfaces; performing inspection; practicing good housekeeping; and completing work documentation.

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**Skills**

**5236.01 Select grinding wheel** using manufacturer’s wheel charts with consideration to workpiece material, to ensure that the wheel selected is the correct grade and size to finish, shape, and size workpiece so that the finish of the workpiece conforms to the working drawings and job specifications .

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice’s Sponsor.**

**5236.02**     **Select feed rate and depth of cut** using manufacturer’s wheel charts with consideration to workpiece material and the finish of the workpiece, so that the machine performs optimal cutting without damage to workpiece, cutting tools, or machines, in accordance with the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.03**     **Check condition of grinding wheel** for defects, cracks, or chips, and by taking corrective action or replacing if required, to ensure personal safety and to perform optimal cutting, in accordance with job and manufacturer’s specifications and Safety Legislation.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.04**     **Dress grinding wheel** to specified profile using diamond or star-wheel dresser, to ensure personal safety and to perform optimal grinding in accordance with working drawings and job specification.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.05**     **Locate and position workpiece in grinder** to required operational clearances by setting up workholding devices such as angle plates, magnetic holders, vises, chucks, centres, jigs, V-blocks, or mandrels, so that the workpiece is aligned, secured, and stable during grinding operations in accordance with job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.06**     **Surface grind workpiece** using surface grinders so that the finish, flatness, and size of ground surfaces conforms to working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.07**     **Hone holes** using a honing machine and required attachments, so that the dimension and tolerance of honed hole conforms to working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.08 Lap workpiece** by hand lapping or using a power lapping machine so that the finish and flatness of the lapped surface conforms to working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.09 Grind inside and outside diameters (ID/OD)** using machine grinders such as cylindrical grinders, toolpost grinders and roll grinders, so that the dimensions and tolerances of ground ID/OD surfaces conform to working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.10 Grind tools and cutters** using pedestal, surface, or tool and cutter grinders, so that the ground cutting edge of tools or cutters conforms to tool geometry standards to ensure optimal metal removal and finish.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5236.11**     **Check ground surfaces** using surface comparators and profilometers to ensure that the surface is finished as specified in the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.12**     **Perform inspection** using precision measuring instruments and checking devices such as inside, outside and depth micrometers, vernier height gauges or dial indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the ground workpiece conform to the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.13**     **Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5236.14 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets, to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately and clearly in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.0 Perform Lathe Work**

**General Performance Objective**

**Perform lathe work by:** selecting, and preparing cutting tools; locating and positioning workpiece; setting up lathe cutting tools; selecting speeds and feeds and depth of cut; performing a trial cut; establishing a reference or starting point (datum); facing a surface; turning an external diameter; drilling, boring, reaming, and tapping a hole; turning an internal or external thread; cutting a taper; knurling cylindrical surface patterns; grooving and parting- off; deburring workpiece; performing inspection; practicing good housekeeping; and completing work documentation.

**Skills**

**5237.01 Select lathe cutting tools** such as drill bits, boring, parting, threading, facing, or turning tool, to ensure that tool is the correct size, shape, type, and grade for the application, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5237.02 Prepare lathe cutting tools** by sharpening or replacing, so that the cutting shape and angle is prepared for optimal cutting and personal safety, in accordance with manufacturer's specifications and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.03 Locate and position workpiece in lathe** to required operational clearances by setting up and securing workholding devices such as chucks, face plates, centres, steady rest, or tail stock, so that the workpiece is aligned, secured, and stable during machining in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.04 Set up lathe cutting tools** to required operational alignments using tool posts and tail stocks, to ensure that tools are in position and held securely during machining in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.05**     **Select speeds and feeds of lathe and depth of cut** using charts and formulas with consideration to the diameter, type, and hardness of workpiece material, so that the lathe performs optimal cutting without damage to workpiece, cutting tools, or machine and ensuring personal safety in accordance with job and manufacturer’s specifications, company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.06**     **Perform a trial cut** to establish a reference surface and to check speeds and feeds to ensure that the lathe is set up in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.07**     **Establish a reference or starting point (datum)** by zeroing out machine and ensuring that the datum is correctly located, in accordance with job specifications, working drawings, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.08 Face a surface** using a cutting tool and by measuring or checking with vernier, straight edge, dial indicator or micrometer, so that the surface flatness and finished edge, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.09 Turn an external diameter** using cutting tool and by measuring or checking with a vernier or micrometer, so that the turned diameter, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.10 Drill a hole** using a centre-drill, drills, tail stock or tool post, so that the diameter and depth of the drilled hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.11 Bore an internal diameter** using a boring bar mounted in a toolpost, so that the internal diameter and depth, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.12 Ream a hole** using centre drill, drills, reamers, tail stock or tool post, and by measuring or checking with vernier, micrometer, and gauges, so that the depth and diameter of the reamed hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.13 Tap a hole** using taps, tapping head, tail stock or tool post, so that the depth, diameter, and thread pitch of the tapped hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.14 Turn an internal or external thread** using a cutting tool and by measuring or checking with 3-wire method, thread micrometers or thread gauges, so that the pitch, geometrical form, and dimensional tolerance of the turned thread, in accordance with working drawings and thread standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.15 Cut a taper** by using the taper-turning attachment and compound rest method, and by offsetting the tail stock, by measuring or checking with protractors, micrometers, vernier height gauges, or templates, so that the size and angle of the turned taper, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.16 Knurl cylindrical surface patterns** using knurling tools, so that the diameter, form, depth, and finish of knurled surface patterns, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.17 Groove and part-off** using grooving or parting tools, so that the width, length, depth, profile and squareness of cuts conform to workings drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.18 Deburr workpiece** using files, scrapers, emery cloth and sanders, to remove excess material and to ensure safe handling, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.19 Perform inspection** using precision measuring instruments and checking devices such as inside, outside and depth micrometers, vernier height gauges or dial indicators, sine bars and gauges, to ensure that the tolerances and dimensions of the turned workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5237.20 Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5237.21 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports, or procedure sheets to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately and clearly, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**5238.0 Perform Milling**

**General Performance Objective**

**Perform milling by:** selecting milling cutting tools; preparing cutting tools; setting up and maintaining adjustable support tools; setting up milling cutting tools; selecting speeds and feeds; fly-cutting; face-milling; machining steps, cut-outs, angles, and open slots; machining a pocket or slot; machining and boring holes; deburring workpiece; performing inspection; practicing good housekeeping; and completing work documentation.

**Skills**

**5238.01 Select milling cutting tools** such as end mills, face mills, shell cutters, slot drills, boring bars, profile cutters, slitting saws, and boring heads, to ensure that the tool is the correct size, shape, type, and grade for the application, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5238.02 Prepare milling cutting tools** by sharpening or replacing, so that the cutting shape and angle is prepared for optimal cutting and personal safety, in accordance with manufacturer's specifications and company standards/ procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.03 Set-up and maintain milling adjustable support tools** such as indexing heads, vises, angle plates, V-blocks, sine bars, and rotary tables, ensuring that the support tool is the correct one for the application and the workpiece is located and secured during machining, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.04 Set-up milling cutting tools** to required operational alignments using arbours, collets, and drill chucks, to ensure the tools are in position and held securely during machining, in accordance with working drawings, job and manufacturer's specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.05 Select speeds and feeds of mill** using charts and formulas with consideration to the size and type of cutter, depth of cut, and hardness of workpiece material, so that the mill performs optimal cutting without damage to workpiece, cutting tools, or machine and ensures personal safety, in accordance with job and manufacturer's specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.06 Perform fly-cutting** using a single point tool bit, and cutting fluid, so that the size, shape, squareness, and flatness of the fly-cut workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.07 Face-mill** using a multi cutting edge face mill, and cutting fluids, so that the size, shape, squareness, and flatness of the workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.08 Machine steps, cut-outs, angles, and open slots** using an end mill, arbour and rotary cutters, and cutting fluid, so that the size, shape, and angle of the workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.09 Machine a pocket or slot** using a slot drill, center cutting end mill, and cutting fluid, so that the size, shape, and angle of milled pockets or slots, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.10 Machine a hole** using drill bits, reamers, slot drills, and cutting fluid, so that the diameter, depth, and tolerance of the hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.11 Bore holes** using a boring bar, boring head, and cutting fluid, so that the diameter, finish, depth and location of the hole, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.12 Deburr workpiece** using files, scrapers, emery cloth, sanders, and hand grinders, to remove excess material and to ensure safe handling, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.13 Perform inspection** using precision measuring instruments and checking device instruments such as inside, outside and depth micrometers, vernier height gauges or dial indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the workpiece, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.14 Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5238.15 Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports or procedure sheets to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately and clearly, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.0 Perform Computerized Numerically Controlled (CNC) Machining**

**General Performance Objective**

**Perform CNC machining by:** identify and selecting CNC machining process; preparing CNC set- up sheet; inputting program data; determining tool path and calculating coordinates; identifying and selecting cutting tools and tooling; setting up CNC tool offsets; identifying, selecting and setting machine parameters; positioning and aligning workpiece; verifying part program at CNC machining controls; storing and recording verified CNC program; storing and recording verified program; monitoring CNC machining process; performing inspection; practicing good housekeeping; and completing work documentation.

**Skills**

**5239.01 Identify and select CNC machining process** to ensure that the process selected is the correct one to make the parts or components, in accordance with the working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**5239.02 Prepare CNC setup sheet** to identify and describe all pertinent information needed for set up of machine tools, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.03 Input program data to the machine memory** using information from machine- tool manual and programming data, so that the data is input to machine the part, in accordance with working drawings and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.04 Determine tool path and calculate coordinates** to establish tool path such as entry and exit moves, in accordance with set up sheet, working drawings, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**5239.05 Identify and select CNC cutting tools and tooling** such as tool holders, end and face mills, carbide insert tools, centre-drill, drill, taps, reamers, counter bores, and boring heads, to ensure that the tools and tooling selected are the correct ones to machine the workpiece, in accordance with the working drawings and set up sheets.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.06 Set up CNC tool offsets** relative to pre-determined reference points and the tool sequencing as defined in the program, to ensure that tools are set up to machine the workpiece, in accordance with working drawings and/or CAD data, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.07 Identify, select, and set machine parameters** such as spindle feeds, table feeds, and power settings using charts and formulas, with consideration to the type, size, grade, and hardness of the material to be cut and the cutter type, so that the workpiece is machined efficiently and safely without damage to tooling, machine, or workpiece and ensures personal safety, in accordance with working drawings and/or CAD data, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5539.08 Position and align workpiece in CNC machine** to specified datums and alignments, using chucks, face plates, collets, vises, clamps, stops, and fixtures to locate and position the workpiece, avoid collisions, and, ensure maximum stability during machining, in accordance working drawings and/or CAD data, manufacturer's and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.09 Verify part program at CNC machine controls** by performing a dry run; taking a test cut; interrupting machining; measuring and checking dimensions; making adjustments to machine feeds, speeds, and offsets; editing the program; taking a final cut; and, performing an inspection prior to the production run; to ensure that the dimensions, shape, and tolerances of the machined part, in accordance with working drawings and/or CAD data, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.10 Store and record verified program** on storage media for future use, so that programs can be retrieved and available for repeat machining jobs, in accordance with company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.11 Monitor CNC machining process** by interrupting machining, measuring or checking dimensions, and making adjustments to machine feeds, speeds, and offsets to optimize tool condition and life, so that the dimensions, shape, and tolerances of the machined workpiece are maintained during machining, in accordance with working drawings and/or CAD data, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.12 Perform inspection** using precision measuring instruments and checking device instruments such as inside, outside and depth micrometers, vernier height gauges or dial indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the CNC machined workpiece, in accordance with working drawings and/or CAD data, and job specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.13 Practice housekeeping** in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented and tools or equipment are in place and available, in accordance with company standards/procedures and government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**5239.14** **Complete work documentation** such as tracking sheets, sign-off sheets, work orders, inspection reports or procedure sheets to record the finalization of jobs and to facilitate traceability of work-in-process, ensuring that all data is recorded accurately and clearly, in accordance with working drawings, job specifications, and company standards/procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## Definitions

### Apprentice

- An individual who, pursuant to a registered Training Agreement, is receiving or is to receive training in a trade that is required as part of an apprenticeship program
- Holds a Training Agreement in either a compulsory or non-compulsory trade;
- Are subject to any ratios that have been set out in regulation and or recommended by industry for their trade(s);
- Remain as an Apprentice until they receive their Certificate of Apprenticeship

### BOSTA

*Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*

### Certificate of Apprenticeship (C of A)

A certificate issued to individuals who have demonstrated that they have completed an apprenticeship program in Ontario.

### Certificate of Qualification (C of Q)

A certificate issued to an individual who has completed an apprenticeship or equivalent AND passed the Certificate of Qualification examination.

### Competence

The ability of an individual to perform a skill, consistently without assistance, in the workplace as set out in the Logbook.

### Competency Analysis Profile (CAP Chart)

A chart that identifies the training needs of an individual trade and details the skills/skill sets that must be demonstrated during an apprenticeship program.

### Journeyman

Journeyman means an individual who holds a certificate of qualification (in a compulsory or non-compulsory trade) and/or an individual who practices as a journeyman in a non-compulsory trade who does not hold a certificate of qualification and has equivalent experience in that trade.

### Mandatory Skill

Status assigned to unshaded individual skills, skill sets or general performance objectives which must be signed-off for the Apprentice to complete their program.

### Optional Skill

Status assigned to shaded individual skills, skills sets or general performance objectives for which sign-off is not required for the Apprentice to complete the program.

### **Provisional Certificates of Qualification**

- A Provisional Certificate of Qualification is issued to an individual who has obtained a Certificate of Apprenticeship (in both compulsory and non-compulsory trades) in a program that has a Certificate of Qualification examination, to which the individual has not yet passed the Certificate of Qualification examination.
- A Provisional Certificate of Qualification shall have the prescribed term or, if no term is prescribed, a term of one year.
- In a compulsory trade, the Provisional Certificate of Qualification allows a person to continue working legally in the trade for up to 12 months while they work to pass the certifying exam.
- Individuals with a Provisional Certificate of Qualification are subject to any ratios that have been set out for their trade(s).

### **Ratios**

For the purpose of an Apprenticeship program, a ratio is the maximum number of Journeypersons to Apprentices. The purpose of ratios is to provide consistent supervision, training and continuity of work.

### **Red Seal Program**

The Interprovincial Standards Red Seal Program (also known as the Red Seal Program) was established more than 50 years ago to provide greater mobility across Canada for skilled workers and represents a standard of excellence for industry. Through the program, individuals are able to obtain a Red Seal endorsement on their provincial/territorial certificates by achieving 70% or higher on an interprovincial Red Seal examination.

The Interprovincial Standards Red Seal Program acknowledges their competence and ensures recognition of their certification throughout Canada without further examination. There are currently over 50 Red Seal designated trades. **The Red Seal Program is recognized as the interprovincial *standard of excellence* in the skilled trades.** The Interprovincial Standards Red Seal Program is a partnership between the Government of Canada, the Provinces, the Territories and various stakeholders.

### **Sign-off**

Signature of the Sponsor of record, or an individual to whom that Sponsor has delegated signing authority, (e.g. Trainer) indicating an Apprentice's demonstration of competence.

### **Skill**

Individual competency/task described in the Logbook.

### **Skill Sets**

Group or selection of individual skills found in the Logbook.

**Skill Set Completion for Sponsors**

Listing for all skill sets and includes space for sign-off by Sponsor of record.

**Sponsor**

Means a person that has entered into a registered Training Agreement under which the person is required to ensure that an individual is provided with workplace-based training in a trade as part of an apprenticeship program.

**Sponsor of Record**

Refers to the Sponsor documented as being signatory to the registered Training Agreement or Contract of Apprenticeship. In order for a Sponsor to be considered for the training of Apprentices, they must identify that the workplace has qualified persons or the equivalent on site, and can identify that the workplace has the tools, equipment, materials, and processes which have been identified by the Industry representatives for the trade.

**Trainer**

An individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice. For a compulsory trade, a qualified Trainer is an individual who holds a Certificate of Qualification. In a non-compulsory trade, a Trainer is an individual who either holds a CofQ, CofA, or is considered equivalent.

## Ready to Write Your Exam?

Many of the skilled trades in Ontario have a final certification examination that you must pass to become certified in your trade. Passing the examination gives you the right to hold yourself out as a Journeyman and receive a Certificate of Qualification in your trade.

There are two types of trade certification examinations in Ontario:

1. Provincial (Ontario) examinations - which lead to a Certificate of Qualification.
2. Red Seal examinations – which lead to a Certificate of Qualification with an Interprovincial Red Seal endorsement.

If a trade is designated as Red Seal in Ontario, you will be writing the Red Seal examination. To access the Red Seal preparation guide please visit: [red-seal.ca](http://red-seal.ca)

## Ontario's Exam Preparation Guide

[Exam Resources – Skilled Trades Ontario](#)

### Basic Examination Details for You to Know

- You will have **up to four hours to write your examination.**
- Accommodations must be requested and approved prior to scheduling your examination.
- You can leave the examination centre if you complete the examination in less than four hours.
- Exam questions are multiple choice with four options from which you must choose the correct answer. Your examination may have between 90 and 150 multiple choice questions.
- You need a mark of 70% to pass.

### Scheduling Your Examination

The examination scheduling process is currently outlined in detail on the Skilled Trades Ontario website: [Exam Scheduling – Skilled Trades Ontario](#)

### Remember these 3 basic steps:

1. Confirm your eligibility to write the examination with Skilled Trades Ontario.
2. Contact Client Services at Skilled Trades Ontario to pay your examination fee.
3. Contact the local Service Delivery Office to schedule your examination in their examination centre: <https://www.ontario.ca/page/employment-ontario-apprenticeship-offices>



## **Instructions for Recording a Change in Sponsor**

1. Record your first sponsor's information in Sponsor Record #1 – this would be the sponsor who has signed your initial apprenticeship Training Agreement for this trade.
2. If you do change sponsors prior to completing this apprenticeship, please contact your local Service Delivery Office immediately to update your sponsor record.
3. Please make sure you record all the information regarding any additional sponsors of record towards your apprenticeship using the Sponsor Records on the following pages (if applicable).

**You must fill out a Change of Sponsor Record each time you change your sponsor.**

**Sponsor Record #1**

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

**Change of Sponsor Record #2**

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

### Change of Sponsor Record #3

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

### Change of Sponsor Record #4

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

## Appendix A — Instructions for Apprenticeship Program Completion

Once an Apprentice has completed all the classroom training and benchmark on-the-job hours specified for the trade and has acquired all the mandatory skills included in this Logbook.

The Apprentice and the Sponsor complete the Apprentice Completion Form and the Skill Set Completion for Sponsors Form located on the following pages.

1. They sign the forms and submit them to their local Service Delivery Office. To find the closest office, check the contact information at [ontario.ca/page/employment-ontario-apprenticeship-offices](http://ontario.ca/page/employment-ontario-apprenticeship-offices) or call the Employment Ontario toll free number at (1-800-387-5656).
2. For All Trades: All mandatory skills (or the combination indicated in the completion requirements for the trade) in the Logbook must be signed-off. The recommended hours are a benchmark. If the Sponsor is completing the Apprentice before the industry recommended training hours are done, staff may request further information regarding the Apprentice's on-the-job training. An example of a request would be a letter from the Sponsor confirming the Apprentice worked for some time in the trade before the initial Training Agreement was registered, thereby acquiring some skills beforehand.

If Apprentices are submitting the completion request form and supporting documentation to their local Service Delivery Office by mail, fax, or email (as a scanned document), they should not include their Logbook; if they are presenting this form in person at the local Service Delivery Office, they should bring their Logbook with them.

After staff verifies all the information in the completion request, they may contact either the Apprentice or the Sponsor for further information or documentation. Once the completion has been confirmed, the local Service Delivery Office will issue a Certificate of Apprenticeship to the Apprentice.

Skilled Trades Ontario will receive notification of this completion.

- If the Apprentice has completed a program in a **compulsory trade**, Skilled Trades Ontario will automatically register the Apprentice for a Provisional Certificate of Qualification to continue to work legally for one year while preparing for the certification examination.
- If an Apprentice completes their apprenticeship in a **non-compulsory trade** and there is a Certificate of Qualification exam, they must write and pass the exam to receive a Certificate of Qualification from Skilled Trades Ontario.

For permission to schedule an exam once completion is confirmed, the individual must first contact the Skilled Trades Ontario Client Services Department at 647-847-3000 or toll free at 1-855-299-0028 to pay the certification examination fee. Once you have paid your exam fee with Skilled Trades Ontario, book your exam by contacting your nearest Employment Ontario local Service Delivery Office.

## Appendix B — Apprentice Completion Form

Please fill out both sides of this form, including the Skill Set Completion for Sponsors (see back of form). Once both sides are completed, submit the form to your local Service Delivery Office (find contact information at [ontario.ca/page/employment-ontario-apprenticeship-offices](http://ontario.ca/page/employment-ontario-apprenticeship-offices) or by calling Employment Ontario at (1-800-387-5656).

Apprentice Information	
Name (print)	
Client ID # Issued by Ministry	
Telephone Number(s)	

Sponsor Information	
Legal Name	
Address	
Telephone Number(s)	
Sponsor's Signing Authority <i>(print name)</i>	
E-mail Address	

Program Information	
Trade Name	
Number of hours required as per Training Agreement <i>(hours-based trades only)</i>	
Hours completed? <i>(documentation attached)</i>	Yes ( )    No ( )    Not applicable ( )
Classroom training completed or exempt?	Yes ( )    No ( )    Not applicable ( )

I hereby confirm that the information submitted on both sides of this form is true and accurate.

X \_\_\_\_\_  
Apprentice's Signature                  Date

X \_\_\_\_\_  
Signature of Sponsor's Signing Authority          Date

### Appendix C — Skill Set Completion for Sponsors

You will find the skill set numbers and titles in the Logbook's Table of Contents. By signing off each skill set in the table below, you are providing final confirmation, as the Apprentice's Sponsor, that the Apprentice has demonstrated competency in all the mandatory skills included in the skill set.

Skill Set #	Skill Set Title	Signing Authority Signature
<b>5230</b>	Protect Self and Others	
<b>5231</b>	Plan And Prepare for Machining Job	
<b>5232</b>	Perform Work-In-Process Dimensional or Surface Verification	
<b>5233</b>	Perform Benchwork	
<b>5234</b>	Perform Power Sawing	
<b>5235</b>	Perform Drilling Using Drill Press/Machine	
<b>5236</b>	Perform Machine Grinding	
<b>5237</b>	Perform Lathe Work	
<b>5238</b>	Perform Milling	
<b>5239</b>	Perform Computerized Numerically Controlled (CNC) Machining	

<b>Ministry of Labour, Immigration, Training and Skills Development use only:</b>		
Sponsor verified as most recent sponsor of record:	Yes ( )	No ( )
Documentation to support completion of hours attached:	Yes ( )	No ( )
Completion of classroom training verified:	Yes ( )	No ( )
Staff Name _____ Signature _____		
Date _____		



## Appendix D — Local Service Delivery Offices in Ontario

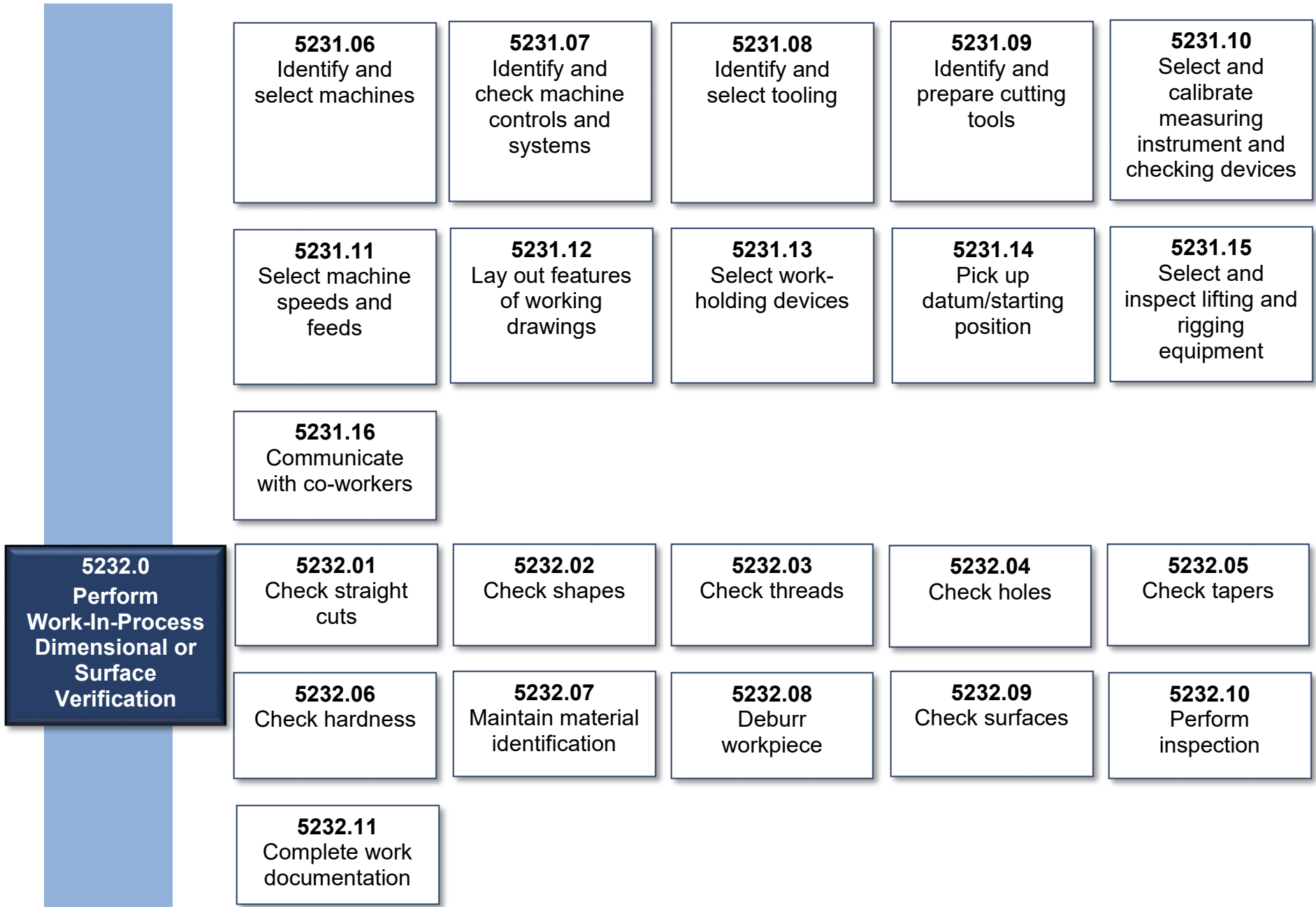
For current office listings visit: [ontario.ca/page/employment-Ontario-apprenticeship-offices](http://ontario.ca/page/employment-Ontario-apprenticeship-offices)

Location	Contact	Location	Contact
<b>Barrie</b> 705-737-1431	55 Cedar Pointe Dr Unit 609, Barrie, ON L4N 5R7	<b>Marathon</b> 807-346-1550	52 Peninsula Road, Suite 103 Marathon, Ontario, P0T 2E0
<b>Belleville</b> 613-968-5558 1-800-953-6885	135 North Front St, Belleville, ON K8P 3B5	<b>Markham</b> 905-513-2695	140 Allstate Parkway, Suite 505, Markham, Ontario L3R 5Y8
<b>Brantford</b> 519-756-5197	505 Park Rd North Suite 201, Brantford, ON N3R 7K8	<b>North Bay</b> 705-495-8515 1-800-236-0744	200 First Ave West, North Bay, ON P1B 3B9
<b>Chatham</b> 519-354-2766 1-800-214-8284	870 Richmond St West 1st Floor, Chatham, ON N7M 5J5	<b>Ottawa</b> 613-731-7100 1-877-221-1220	Preston Square, 347 Preston Street, Suite 310, Ottawa, ON K1S 3H8
<b>Cornwall</b> 613-938-9702 1-877-668-6604	132 Second St East Ste 202, Cornwall, ON K6H 1Y4	<b>Owen Sound</b> 519-376-5790 1-800-838-9468	1450 1st Ave West, Suite 100, Owen Sound, ON N4K 6W2
<b>Dryden</b> 807-456-2665 1-800-734-9572	Provincial Government Building, 479 Government St, Dryden, ON P8N 3K9	<b>Peel</b> 905-279-7333 1-800-736-5520	The Emerald Centre, 10 Kingsbridge Garden Circle, Suite 404, Mississauga, ON L5R 3K6
<b>Durham</b> 905-433-0595 1-800-461-4608	78 Richmond Street West, Oshawa, ON L1G 1E1	<b>Pembroke</b> 613-735-3911 1-800-807-0227	615 Pembroke St East, Pembroke, ON K8A 3L7
<b>Elliot Lake</b> 1-800-236-8817	50 Hillside Dr North, Elliot Lake, ON P5A 1X4	<b>Peterborough</b> 705-745-1918 1-877-433-6555	901 Lansdowne St West, Peterborough, ON K9J 1Z5
<b>Fort Frances</b> 807-274-8634	922 Scott St 2nd Flr, Fort Frances, ON P9A 1J4	<b>Sarnia</b> 519-542-7705 1-800-363-8453	Bayside Mall, 150 Christina St North, Sarnia, ON N7T 7W5
<b>Geraldton</b> 807-854-1966	208 Beamish Avenue West Geraldton, Ontario P0T 1M0	<b>Sault Ste. Marie</b> 705-945-6815 1-800-236-8817	477 Queen St East 4th Flr, Sault Ste Marie, ON P6A 1Z5
<b>Halton</b> 905-842-5105 1-844-901-5105	700 Dorval Dr., Suite 201, Oakville, ON L6K 3V3	<b>St Catharines</b> 905-704-2991 1-800-263-4475	Garden City Tower, 301 St Paul St East, 10th Flr, St Catharines, ON L2R 7R4
<b>Hamilton</b> 905-521-7764 1-800-668-4479	Ellen Fairclough Bldg, 119 King St West 8th Flr, Hamilton, ON L8P 4Y7	<b>Sudbury</b> 705-564-3030 1-800-603-5999	159 Cedar St Ste 506, Sudbury, ON P3E 6A5
<b>Kapuskasing</b> 705-465-5785 705-235-1950	Ontario Government Complex, 122 Government Rd West, Kapuskasing, ON P5N 2X8	<b>Thunder Bay</b> 807-346-1550 1-800-439-5493	189 Red River Rd Suite 103, Thunder Bay, ON P7B 1A2
<b>Kenora</b> 807-468-2879 1-800-734-9572	227 1/2 Second St South, Kenora, ON P9N 1G4	<b>Timmins</b> 705-235-1950 1-877-275-5139	Ontario Government Complex, 5520 Highway 101 East Wing B, South Porcupine, ON P0N 1H0
<b>Kingston</b> 613-548-1151 1-866-973-4043	Alliance Business Centre, 299 Concession St Ste 201, Kingston, ON K7K 2B9	<b>Toronto Centre</b> 416-927-7366 1-800-387-5656	2 St Clair West, 11 <sup>th</sup> floor Toronto, ON M4A 1L5
<b>Kitchener</b> 519-653-5758 1-866-877-0099	4275 King St East, Kitchener, ON N2P 2E9	<b>Toronto South</b> 416-326-5800	625 Church St 1st Fl, Toronto, ON M7A 2B5
<b>London</b> 519-675-7788 1-800-265-1050	1200 Commissioners Rd E, Unit 72, London, ON N5Z 4R3	<b>Windsor</b> 519-973-1441	Roundhouse Centre, 3155 Howard Ave 2nd Fl, Suite 200, Windsor, ON N8X 4Y8

### Competency Analysis Profile (CAP) Chart

<b>5230.0</b> Protect Self and Others	<b>5230.01</b> Identify health and safety hazards in the workplace	<b>5230.02</b> Identify and locate workplace safety features	<b>5230.03</b> Wear, adjust, and maintain personal protective equipment	<b>5230.04</b> Wear, adjust, and maintain respiratory protectors	<b>5230.05</b> Practice safe work habits	
	<b>5230.06</b> Follow fire procedures	<b>5230.07</b> Operate emergency safety equipment	<b>5230.08</b> Practice industrial hygiene	<b>5230.09</b> Practice housekeeping in the workplace	<b>5230.10</b> Conduct pre-operational check of equipment	
	<b>5230.11</b> Report injuries	<b>5230.12</b> Follow procedures for applying first aid	<b>5230.13</b> Lock out mechanical equipment to ensure zero energy	<b>5230.14</b> Handle designated substances	<b>5230.15</b> Inspect and operate lifting equipment	
	<b>5231.0</b> Plan and Prepare for Machining Job	<b>5231.01</b> Read and interpret working drawings	<b>5231.02</b> Perform calculations for machining operations	<b>5231.03</b> Read and interpret work-process documentation	<b>5231.04</b> Verify workpiece material	<b>5231.05</b> Identify and select cutting fluids

**Competency Analysis Profile: General Machinist 429A** (all unshaded skill sets must be completed)



Competency Analysis Profile: General Machinist 429A (all unshaded skill sets must be completed)

<b>5233.0</b> Perform Benchwork	<b>5233.01</b> Hand-file	<b>5233.02</b> Hand-saw	<b>5233.03</b> Hand-drill holes	<b>5233.04</b> Hand-thread	<b>5233.05</b> Hand-ream
	<b>5233.06</b> Repair threads	<b>5233.07</b> Hand-finish	<b>5233.08</b> Hand-broach	<b>5233.09</b> Operate heating equipment	<b>5233.10</b> Refurbish machines and components
	<b>5233.11</b> Practice housekeeping	<b>5233.12</b> Complete work documentation			
<b>5234.0</b> Perform Power Sawing	<b>5234.01</b> Select and visually inspect blade	<b>5234.02</b> Lay out features of working drawings	<b>5234.03</b> Locate and position workpiece in saw	<b>5234.04</b> Select speeds and feeds of saw	<b>5234.05</b> Install and test-run blade
	<b>5234.06</b> Check cut-off	<b>5234.07</b> Cut shapes using a vertical bandsaw	<b>5234.08</b> Cut squared and angled surfaces using a power cut-off saw	<b>5234.09</b> Maintain material identification	<b>5234.10</b> Deburr workpiece
	<b>5234.11</b> Practice housekeeping	<b>5234.12</b> Complete work documentation			

Competency Analysis Profile: General Machinist 429A (all unshaded skill sets must be completed)

<b>5235.0</b> Perform Drilling Using Drill Press/Machine	<b>5235.01</b> Select drill press/machine tooling	<b>5235.02</b> Prepare cutting tools for drills	<b>5235.03</b> Locate and position workpiece in drill press/machine	<b>5235.04</b> Set up tooling in drill press/ machine	<b>5235.05</b> Select speeds and feeds of drill press/machine	
	<b>5235.06</b> Centre-drill a layout punch mark	<b>5235.07</b> Drill a hole	<b>5235.08</b> Chamfer a hole	<b>5235.09</b> Ream a hole	<b>5235.10</b> Machine thread a hole	
	<b>5235.11</b> Spotface a hole	<b>5235.12</b> Counterbore a hole	<b>5235.13</b> Countersink a hole	<b>5235.14</b> Deburr workpiece	<b>5235.15</b> Perform inspection	
	<b>5235.16</b> Practice housekeeping	<b>5235.17</b> Complete work documentation				
	<b>5236.0</b> Perform Machine Grinding	<b>5236.01</b> Select grinding wheel	<b>5236.02</b> Select feed rate and depth of cut	<b>5236.03</b> Check condition of grinding wheel	<b>5236.04</b> Dress grinding wheel	<b>5236.05</b> Locate and position workpiece in grinder

Competency Analysis Profile: General Machinist 429A (all unshaded skill sets must be completed)

<b>5237.0</b> Perform Lathe Work	<b>5236.06</b> Surface grind workpiece	<b>5236.07</b> Hone holes	<b>5236.08</b> Lap workpiece	<b>5236.09</b> Grind inside and outside diameters (ID/OD)	<b>5236.10</b> Grind tools and cutters
	<b>5236.11</b> Check ground surfaces	<b>5236.12</b> Perform inspection	<b>5236.13</b> Practice housekeeping	<b>5236.14</b> Complete work documentation	
	<b>5237.01</b> Select lathe cutting tools	<b>5237.02</b> Prepare lathe cutting tools	<b>5237.03</b> Locate and position workpiece in lathe	<b>5237.04</b> Set up lathe cutting tools	<b>5237.05</b> Select speeds and feeds of lathe and depth of cut
	<b>5237.06</b> Perform a trial cut	<b>5237.07</b> Establish a reference or starting point (datum)	<b>5237.08</b> Face a surface	<b>5237.09</b> Turn an external diameter	<b>5237.10</b> Drill a hole
	<b>5237.11</b> Bore an internal diameter	<b>5237.12</b> Ream a hole	<b>5237.13</b> Tap a hole	<b>5237.14</b> Turn an internal or external thread	<b>5237.15</b> Cut a taper

Competency Analysis Profile: General Machinist 429A (all unshaded skill sets must be completed)









## Completing Your Apprenticeship Program

Once your sponsor agrees you are competent in the required skills, your hours are complete and you have completed all the levels of classroom training required for your trade:

- ✓ Follow the completion instructions on the Completion Form (Appendix A) in the Logbook.
- ✓ Answer any questions that MLITSD staff may have and provide any additional completion documentation that may be required.
- ✓ Once completion is confirmed, MLITSD will issue you a Certificate of Apprenticeship and notify Skilled Trades Ontario.

## After Your Apprenticeship

If you are in a trade with a certification exam, Skilled Trades Ontario will receive notice of your completion.

For compulsory trades, you will be issued a Provisional Certificate of Qualification which will allow you to work legally for up to 12 months until you write and pass your examination.

For a non-compulsory trade, once you pass your examination, you will be issued a Certificate of Qualification for your trade.

## Preparing For Your Exam

- **To pay for a Certificate of Qualification examination, contact Skilled Trades Ontario** Client Services Department at: 647-847-3000 or toll free at 1-855-299-0028
- **To schedule your exam:** Once you have paid, contact your local Service Delivery Office to book your exam.
- **Download Skilled Trades Ontario exam preparation guide at:** [Exam Resources – Skilled Trades Ontario](#) and/or view the exam preparation guide for Red Seal trades at: [red-seal.ca](http://red-seal.ca)



[SkilledTradesOntario.ca](http://SkilledTradesOntario.ca)



Machinist