



**Skilled
Trades**
Ontario

**Métiers
spécialisés**
Ontario

Apprenticeship
Training Standard
Logbook

Tool/Tooling Maker

630T

2004

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

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 2: Apprenticeship

Phase 3: Certification

* For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

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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 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](https://skilledtradesontario.ca).

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Maintained with transfer to Skilled Trades Ontario 2004 (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 journeyperson/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	red-seal.ca
Apprenticeship in Ontario	ontario.ca/page/apprenticeship-ontario
Employment Ontario	employmentontario.ca
Service Canada	servicecanada.gc.ca
<i>Building Opportunities in the Skilled Trades Act, 2021</i>	Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)
Ministry of Labour, Immigration, Training and Skills Development	Ministry of Labour, Immigration, Training and Skills Development ontario.ca
Exam Preparation Guide	Exam Resources – Skilled Trades Ontario
Skills Zone (Ontario Skills Passport)	http://www.skillszone.ca/

**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 Tool/Tooling Maker 630T 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

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/;
- 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 Tool/Tooling Maker is set out in section 138 of Ontario Regulation 875/21 under BOSTA and reads as follows:

138. The scope of practice for the trade of tool/tooling maker includes doing the following:

1. Reading and interpreting complex engineering drawings, bills of material, component and part prints, assembly drawings, tool and part drawings and work documentation.
2. Using conventional and numerically controlled metal cutting machines and specialized equipment.
3. Designing, building and assembling tools, jigs, fixtures, specialized equipment, instruments, models and prototypes.
4. Assembling and fitting tool and tooling components.
5. Final fitting and inspecting of tool sub-assemblies and components.
6. Final finishing and testing complex tools and tooling.

*While the Logbook draws on the scope of practice regulation (Section 138 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

Journeyperson to Apprentice Ratio

Industry Recommended Ratios:

While some of the trades regulated under BOSTA are subject to Journeyperson to Apprentice ratios set out in regulation, this trade is not one of them. Instead, **industry has recommended a Journeyperson to Apprentice ratio guideline of 1 Journeyperson (or individual who is deemed equivalent to a journeyperson) 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 Tool/Tooling Maker 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

List of Trainers

Trainer's Name (Please Print)	Trainer's Signature	Date of start with Trainer (day/month/year)

U5555.00 Protect Self and Others**General Performance Objective**

Protect self and others by: identifying health and safety hazards; wearing, adjusting, and maintaining protective clothing, equipment, and respiratory protectors; practising safe work habits, industrial hygiene, and good housekeeping; handling designated substances; following company fire procedures and first aid procedures; operating safety equipment, lifting devices, and material handling equipment; reporting injuries; assisting in completion of written safety and injury reports; conducting pre-operational check of equipment; and, locking out and tagging equipment.

Skills

U5555.01 Identify health and safety hazards in the workplace, so that the potential for personal injury, damage to equipment or the environment is prevented, and corrective action is taken as defined in Safety Legislation or company standards/procedures and hazards are reported.

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.**

U5555.02 Wear, adjust, and maintain personal protective equipment including eye, ear, hand, and foot protectors, to ensure correct fit and optimum protection for the wearer and task being performed in compliance with company standards/procedures and Safety Legislation.

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

U5555.03 **Wear, adjust, and maintain respiratory protectors** to ensure correct fit and optimum protection, in compliance with company standards/procedures and Safety Legislation.

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

U5555.04 **Practise 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 Safety Legislation.

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

U5555.05 **Follow fire procedures** including locating and assessing the severity of the fire, taking appropriate action, suppressing minor fire, activating alarm, and reporting in compliance with company standards/procedures and Safety Legislation.

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

U5555.06 Operate emergency safety equipment including (not limited to) fire extinguishers, respirators, barrier creams, and fire blankets, ensuring that procedures are carried out in a safe and efficient manner in accordance with company standards/procedures and Safety Legislation.

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

U5555.07 Practise industrial hygiene by wearing required clothing and using eye wash or showering to avoid contamination or injury, in compliance with company standards/procedures and Safety Legislation.

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

U5555.08 Practise good 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 compliance with company standards/procedures and Safety Legislation.

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

U5555.09 Conduct pre-operational check of equipment by checking that guards and safety devices are in place, secured, and not damaged, in compliance with company standards/procedures and Safety Legislation.

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

U5555.10 Report injuries to supervisor or first aid personnel promptly and clearly, ensuring that the injured person is attended to and information is reported precisely and accurately describing how incident occurred, so that future recurrence of similar accidents is prevented in compliance with company standards/procedures and Safety Legislation.

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

U5555.11 Follow procedures for applying first aid to treat conditions including (not limited to) 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 compliance with company standards/procedures and Safety Legislation.

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

U5555.12 Lock out mechanical equipment 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 compliance with company standards/procedures and Safety Legislation.

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

U5555.13 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 compliance with Safety Legislation and company standards/procedures.

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

U5555.14 Operate lifting equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, or equipment in compliance with Safety Legislation and company standards/procedures.

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

U5556.00 Plan and Prepare for Machining Job**General Performance Objective**

Plan and prepare for machining job by: reading and interpreting engineering 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 speeds and feeds; laying out features of the engineering drawing; picking up datum/starting position from layout lines; and, communicating with co-workers.

Skills

U5556.01 Read and interpret engineering drawings to identify dimensions and tolerances, machine surface designations and allowances, type of workpiece material, and any other information needed to plan the machining job in accordance with company standards/procedures 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.**

U5556.02 Perform calculations for machining operations including determining speeds and feeds, calculating cutting tool positions, workpiece alignments, and calculating dimensions to be measured and verified, and using both System International (S.I.) and Imperial System, so that all required specifications are correctly determined to machine the workpiece in accordance with engineering drawings and job specifications.

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

U5556.03 Read and interpret work-process documentation to identify required machines, job operations, sequencing of job, method of machining and set-ups, and any other information needed to plan the machining job.

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

U5556.04 Verify workpiece material for correct size and type by checking colour codes, lettering, or numerical stamps to ensure that the workpiece selected conforms to the engineering drawings and job instruction sheets.

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

U5556.05 Identify and select cutting fluids using manuals, charts, engineering 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, and machine.

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

U5556.06 Identify and select machines including conventional and numerically controlled saws, drills, lathes, grinders, and vertical or horizontal mills, and Electrical Discharge Machines (EDM) using information from engineering drawings and work-process documentation, to ensure that machine selected is the correct one for the application and available to perform the job.

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

U5556.07 Identify and check machine controls and systems including locating and identifying switches, buttons, levers, controls, and safety devices, to ensure that all controls are operational and functioning according to manufacturer's specifications and company standards/procedures.

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

U5556.08 Identify and select tooling required to cut the workpiece by using information in engineering drawings and job instructions, to ensure that tooling selected is the correct size and type for application and available to perform the job.

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

U5556.09 Identify and prepare cutting tools by sharpening or replacing tools so that the cutting shape and angle is prepared for optimum cutting and personal safety, in accordance with manufacturer's specifications, engineering drawings, and company standards/procedures.

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

U5556.10 Identify and select measuring instruments and checking devices ensuring that instruments and devices selected are the correct ones to obtain the dimensions and tolerances specified in the engineering drawings and process layout.

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

U5556.11 Select machine speeds and feeds using speed and feed charts and in accordance with the size, type, and hardness of workpiece materials, so that machines perform optimum cutting without damage to workpiece, cutting tools, or machines, and ensures personal safety.

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

U5556.12 Lay out features of engineering drawings on to the workpiece using precision measuring instruments and layout equipment including (not limited to) scribe, center punch, vernier height gauge, surface plate, combination set, and layout medium or dyes, so that the completed layout conforms to engineering drawings or job specifications.

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

U5556.13 Identify and select work-holding devices including (not limited to) vises, clamps, jigs, chucks, face plates, centers, catch plates, 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 Safety Legislation, job specifications, and company standards/procedures.

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

U5556.14 Pick up datum/starting position using layout lines, tooling balls, or edge of the part and required tools including (not limited to) pointer, wiggler, indicator, and edge finder to identify and locate the marked position as specified in engineering drawings and job specifications.

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

U5556.15 Identify and select lifting and rigging equipment including hoists, overhead cranes, chain falls, lift pins, cables, eye bolts, and chains, ensuring that equipment is selected in compliance with Safety Legislation and company standards/procedures for the safe handling and moving of workpiece and materials.

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

U5556.16 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 machining job, ensuring that the information communicated is clear, concise, and accurate.

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

U5557.00 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 final inspection; completing work documentation.

Skills

U5557.01 Check straight cuts by using precision measuring instruments including (not limited to) micrometer, verniers, callipers, squares, straight edge, dial indicator, and surface comparator, to ensure that the accurate size, finish, parallelism, and squareness of straight cuts conform with engineering 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.**

U5557.02 Check shapes by using precision measuring instruments and checking devices including (not limited to) radius gauges, surface comparator, and verniers, to ensure that the profile and finish of the cut shape conform to engineering drawing and job specifications.

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

U5557.03 Check threads by using precision measuring instruments, checking devices, and various checking methods including (not limited to) 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 conform to the engineering drawings and job specifications.

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

U5557.04 Check holes by using precision measuring instruments and checking devices including (not limited to) dial indicators, bore gauges, plug gauges, telescopic gauges, surface comparators, and verniers, to ensure that the accuracy of the diameter, depth, concentricity, position, and finish of cut holes conform with engineering drawings and job specifications.

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

U5557.05 Check tapers using precision measuring instruments and checking devices including (not limited to) taper gauge, sine bar, micrometer, and vernier to ensure that the accuracy of the angle, taper/foot, and diameter of the cut tapers conform with engineering drawings and job specifications.

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

U5557.06 Check hardness using various types of hardness testers and comparison charts to ensure that the hardness level of the workpiece materials conforms with engineering drawings and job specifications.

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

U5557.07 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

U5557.08 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 engineering drawings and job specifications.

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

U5557.09 Check surfaces using surface comparators to ensure that surface is finished in micro-inches or microns as specified in the engineering drawings and job specifications.

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

U5557.10 Perform final inspection using precision measuring instruments and checking devices including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges to ensure that the tolerances and dimensions of the workpiece conform to the engineering drawings and job specifications.

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

U5557.11 Complete work documentation including (not limited to) tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5558.00 Perform Benchwork**General Performance Objective**

Perform benchwork by: hand-filing; hand-sawing; hand-drilling holes; hand-tapping threaded holes; hand-reaming; chasing threads; hand-grinding; and, practising good housekeeping.

Skills

U5558.01 Hand-file using files including (not limited to) flat, needle, bastard, rat-tail, lathe, and half-round files to remove excessive material so that workpiece is filed in accordance with engineering 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.**

U5558.02 Hand-saw using cut-off saws to cut workpiece to specified lengths in accordance with engineering drawings and job specifications.

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

U5558.03 Hand-drill holes using power drill and drill bits, so that the size of the drilled holes conform with engineering drawings and job specifications.

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

U5558.04 Hand-tap threaded holes using taps, T-handle, and tapping block so that the depth and squareness of tapped threads conform to engineering drawings and job specifications..

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

U5558.05 Hand-ream using straight or spiral-fluted reamers to remove excessive material, so that the diameter and depth of reamed hole conform to engineering drawings and job specifications

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

U5558.06 Chase threads using hand taps and dies to repair or clean damaged threads, so that the chased threads conform with engineering drawings and job specifications.

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

U5558.07 Hand-grind using pneumatic or electric hand grinders to remove excess material, so that the workpiece is ground in accordance with engineering drawings and job specifications.

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

U5558.08 Practise good 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 and equipment are in place and available, in compliance with company standards/procedures and Safety Legislation.

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

U5559.00 Perform Sawing**General Performance Objective**

Perform sawing by: checking fused/welded blade; laying out features of the engineering drawings; locating and positioning workpiece in saw; selecting speeds and feeds; installing and test-running blade; checking first cut-off; cutting shapes with vertical bandsaw; cutting squared and angled surfaces with a power cut-off saw; maintaining material identification; deburring workpiece; performing final inspection; completing work documentation; moving workpiece; and, practising good housekeeping.

Skills

U5559.01 Check fused/welded blade to ensure that joined saw has a continuous cutting edge 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.**

U5559.02 Lay out features of engineering drawings on to the workpiece using precision measuring instruments and layout equipment including (not limited to) scribe, centre punch, vernier height gauge, surface plate, combination set, and layout medium or dyes, so that the completed layout conforms to engineering drawings or job specifications.

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

U5559.03 **Locate and position workpiece in saw** to required operational clearances by setting up workholding devices including (not limited to) clamps, nesting fixtures, vises, or roller supports, so that the workpiece is aligned, secured, and stable during sawing operations in accordance with job specifications and Safety Legislation.

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

U5559.04 **Select speeds and feeds of saws** using speed and feed charts and in accordance with the size, type, and hardness of workpiece material, so that machines perform optimum cutting without damage to workpiece, cutting tools, or machines, and ensures personal safety.

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

U5559.05 **Install and test-run blade** to check alignments and movements, so that the blade is installed to make the required cut, prevents machine or blade damage, and ensures personal safety in accordance with company standards/procedures and Safety Legislation.

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

U5559.06 **Check first cut-off** by measuring and checking a cut-off piece, to ensure that the angles, squareness, and length of the sawed piece conforms to the engineering drawings and job specifications.

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

U5559.07 **Cut shapes using a vertical bandsaw** and required sawing sequences, speeds, feeds, and cutting fluids, so that the profile, size, and dimensions of the cut shapes conform to engineering drawings, job specifications, and Safety Legislation.

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

U5559.08 **Cut squared and angled surfaces using a power cut-off saw** and required sawing sequences, speeds, feeds, and cutting fluids, so that the squareness, angles, and size of cut surfaces conform to engineering drawings, job specifications, and Safety Legislation.

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

U5559.09 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 and job specifications.

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

U5559.10 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 engineering drawings, job specifications, and Safety Legislation.

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

U5559.11 Perform final inspection using precision measuring instruments and checking devices including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the sawed workpiece conform to the engineering drawings and job specifications.

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

U5559.12 Complete work documentation including (not limited to) tracking sheets, sign- off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5559.13 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, and equipment in compliance with Safety Legislation and company standards/procedures.

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

U5559.14 Practise good 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 and equipment are in place and available in compliance with company standards/procedures and Safety Legislation.

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

U5560.00 Perform Drilling Using Drill Press/Machines**General Performance Objective**

Perform drilling using drill press/machine by: selecting drill tooling; identifying and preparing cutting tools; locating and positioning workpiece in drill; setting up tooling; selecting speeds and feeds; centre-drilling a layout punch mark; drilling, chamfering, reaming, machine- threading, spot-facing, counter-boring, and counter-sinking a hole; maintaining material identification; deburring workpiece; performing final inspection; completing work documentation; moving workpiece; practising good housekeeping.

Skills

U5560.01 Select drill tooling including drill bits, centre-drill, reamers, taps, counter-bores, counter-sinks, or spot-faces, by using information in engineering drawings and job specifications, to ensure that tooling is the correct size, shape, type, and grade for the application.

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.**

U5560.02 Identify and 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.

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

U5560.03 **Locate and position workpiece in drill** to required operational clearances by setting up and securing workpiece with holding devices including (not limited to) drilling vises, clamps, jigs, angle plates, and chucks, so that the workpiece is aligned, secured, and stable during drilling in accordance with job specifications and Safety Legislation.

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

U5560.04 **Set up tooling in drills** to required operational alignments using holding devices including (not limited to) drill chucks, taper sleeves, and tapping heads, to ensure that tooling is in position and held securely during drilling in accordance with job specifications and Safety Legislation.

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

U5560.05 **Select speeds and feeds of drills** using speed and feed charts and in accordance with size, type, and hardness of workpiece material, so that machines performs optimum cutting without damage to workpiece, cutting tools, and machines, and ensures personal safety.

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

U5560.06 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 engineering drawings and job specifications.

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

U5560.07 Drill a hole using a drilling machine, drill bits, and cutting fluids so that the size and depth of drilled hole conform to engineering drawings and job specifications.

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

U5560.08 Chamfer a hole using a drilling machine, countersinks, and cutting fluids to break sharp edges, so that the chamfered hole conforms to engineering drawings and job specifications.

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

U5560.09 Ream a hole using a drilling machine, reamers, and cutting fluids, so that the diameter of the reamed hole conforms to engineering drawing or job specifications.

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

U5560.10 Machine-thread a hole using a drilling machine, tapping heads, taps, and cutting fluids, so that the depth, size, and pitch of the threaded depth of the hole conform with engineering drawings and job specifications.

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

U5560.11 Spot-face a hole using a drilling machine, spot-facing tools, and cutting fluids, so that the depth and diameter of the spot-faced hole conform to engineering drawings or job specifications.

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

U5560.12 Counter-bore a hole using a drilling machine, counter-boring tools, and cutting fluids, so that the depth and diameter of the counter-bored hole conform to engineering drawings and job specifications.

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

U5560.13 Counter-sink a hole using a drilling machine, countersinks, and cutting fluids, so that the depth and diameter of the counter-sunk hole conform to engineering drawings and job specifications.

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

U5560.14 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 and job specifications.

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

U5560.15 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 engineering drawings, job specifications, and Safety Legislation.

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

U5560.16 Perform final inspection using precision measuring instruments and checking devices including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the drilled workpiece conform to the engineering drawings and job specifications.

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

U5560.17 Move workpiece by operating lifting and rigging equipment including hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, or equipment in compliance with Safety Legislation and company standards.

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

U5560.18 **Practise good 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 compliance with company standards/procedures and Safety Legislation.

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

U5560.19 **Complete work documentation** including (not limited to) tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5561.00 Perform Machine Grinding**General Performance Objective**

Perform machine grinding by: selecting grinding wheels; checking condition of grinding wheel; installing 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 final inspection; completing work documentation; moving workpiece; and, practising good housekeeping.

Skills

U5561.01 Select grinding wheel by using information in engineering drawings, charts, and job specifications, to ensure that the wheel selected is the correct grade and size needed to finish, shape, and size workface in accordance with the hardness and finish of the workpiece 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.**

U5561.02 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 optimum cutting in accordance with job specifications and Safety Legislation.

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

U5561.03 Install grinding wheel to specified radii and tangents/angles using diamond or star-wheel dresser, to ensure personal safety and to perform optimum grinding in accordance with job specifications, Safety Legislation, and company standards/procedures.

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

U5561.04 Locate and position workpiece in grinder to required operational clearances by setting up workholding devices including (not limited to) angle plate, magnetic holders, vises, chucks, centres, jigs, V-block, or mandrels, so that the workpiece is aligned, secured, and stable during grinding operations in accordance with job specifications and Safety Legislation.

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

U5561.05 Surface grind workpiece so that the finish, flatness, and size of ground surfaces conform to engineering drawings and job specifications.

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

U5561.06 Hone holes on a honing machine using required attachments, so that the dimension and tolerance of honed hole conform to engineering drawings and job specifications.

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

U5561.07 Lap workpiece by hand grinding or using a power lapping machine so that the finish and flatness of the lapped surface conforms to engineering drawings and job specifications.

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

U5561.08 Grind inside and outside diameters (ID/OD) using machine grinders so that the dimensions and tolerances of ground ID/OD surfaces conform to engineering drawings and job specifications.

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

U5561.09 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 optimum metal removal and finish.

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

U5561.10 Check surfaces using surface comparators to ensure that the surface is finished in micro-inches or microns as specified in the engineering drawings and job specifications.

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

U5561.11 Perform final inspection using precision measuring instruments and checking devices including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the ground workpiece conform to the engineering drawings and job specifications.

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

U5561.12 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, or chains, to remove, transport, and store materials, parts, or equipment in compliance with Safety Legislation and company standards/procedures.

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

U5561.13 Complete work documentation including (not limited to) tracking sheets, sign-off sheets, inspection reports, or procedure sheets, to record the finalization of jobs and traceability of work-in-process, ensuring that all data is recorded accurately and clearly in accordance with engineering drawings, job specifications, and company standards/procedures.

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

U5561.14 Practise good housekeeping in the workplace by cleaning up spills 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 and equipment are in place and available, in compliance with company standards/procedures and Safety Legislation.

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

U5562.00 Perform Lathe Work**General Performance Objective**

Perform lathe work by: selecting, identifying, and preparing cutting tools; locating and positioning workpiece; setting up lathe cutting tools; selecting speeds and feeds of lathe; taking a sizing (preliminary) 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; producing a taper; knurling cylindrical surface patterns; grooving and parting-off; maintaining material identification; deburring workpiece; performing final inspection; moving workpiece; completing work documentation; and, practising good housekeeping.

Skills

U5562.01 Select lathe cutting tools including (not limited to) drill bits, boring, parting, threading, facing, or turning tools, by using information from engineering drawings and job instructions to ensure that the tools selected are the correct ones needed to cut the workpiece material.

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.**

U5562.02 Identify and prepare lathe cutting tools by sharpening or replacing, so that the cutting shape and angle is prepared for optimum 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

U5562.03 Locate and position workpiece in lathe to required operational clearances by setting up and securing workholding devices including (not limited to) chucks, face plates, centres, catch plates, steady rest, or tail stock, so that the workpiece is aligned, secured, and stable during machining in accordance with job specifications, Safety Legislation, and engineering drawings.

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

U5562.04 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 job specifications.

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

U5562.05 Select speeds and feeds of lathe using speed and feed charts and in accordance with the size, type, and hardness of workpiece material, so that the lathe performs optimum cutting without damage to workpiece, cutting tools, or machine and ensures personal safety in accordance with job specifications.

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

U5562.06 **Take a sizing (preliminary) cut** to determine reference workface and to check speeds and feeds to ensure that lathe is set up in accordance with engineering drawings and job specifications.

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

U5562.07 **Establish a reference or starting point (datum)** by zeroing out machine and ensuring that the datum is correctly located in accordance with job specifications, engineering drawings, and company standards/procedures

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

U5562.08 **Face a surface** using a lathe and single-point tool bit and by measuring or checking with vernier, straight edge, or micrometer, so that the surface flatness and finished edge conform to engineering drawings and job specifications.

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

U5562.09 Turn an external diameter using a lathe and single-point tool and by measuring or checking with a vernier and by measuring or checking with a vernier or micrometer, so that the turned diameter conforms to engineering drawings and job specifications.

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

U5562.10 Drill a hole using a lathe, centre-drill, drills, and tailstock, so that the diameter and depth of the drilled hole conform to engineering drawings and job specifications.

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

U5562.11 Bore an internal diameter using a lathe and boring bars mounted in a toolpost, so that the close-toleranced internal diameters conform to engineering drawings and job specifications.

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

U5562.12 Ream a hole using a lathe, centre-drill, drills, reamers, and tail-stock, and by measuring or checking with vernier, micrometer, and gauges, so that the depth and diameter of the reamed hole conform to engineering drawings and job specifications.

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

U5562.13 Tap a hole using on lathe, taps, tapping head, and tailstock, so that the depth, diameter, and thread pitch of the tapped hole conform to engineering drawings and job specifications.

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

U5562.14 Turn an internal or external thread using a lathe and single-point tool bit and by measuring or checking with thread micrometers and thread plug gauge (go-no- go), so that the pitch, geometrical form, and dimensional tolerance of the turned thread conform to engineering drawings and thread standards.

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

U5562.15 Produce a taper using a lathe, offset tail stock, taper-turning attachment, and compound rest, and by measuring or checking with protractors, micrometers, vernier height gauges, or templates, so that the size and angle of turned taper conform to engineering drawings and job specifications.

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

U5562.16 Knurl cylindrical surface patterns using a lathe and knurling tools, so that the diameter, form, depth, and finish of knurled surface patterns conform to engineering drawings and job specifications.

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

U5562.17 Groove and part-off using a lathe and grooving or parting tools, so that the width, length, depth, and square of cut-offs conform to engineering drawings and job specifications.

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

U5562.18 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

U5562.19 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 engineering drawings, job specifications, and Safety Legislation.

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

U5562.20 Perform final inspection using precision measuring instruments and checking devices including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the completed workpiece conform to the engineering drawings and job specifications.

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

U5562.21 Complete work documentation including (not limited to) tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5562.22 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, or equipment in compliance with Safety Legislation and company standards/procedures.

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

U5562.23 Practise good 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 and equipment are in place and available, in compliance with company standards/procedures and Safety Legislation.

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

U5563.00 Perform Milling**General Performance Objective**

Perform milling by: selecting milling cutter tools; identifying and preparing cutting tools; setting up and maintaining adjustable support tools; setting up milling cutting tools; selecting speeds and feeds; performing fly-cutting; face-milling; machining steps, cut-outs, angles, and open slots, pockets or slots; machining and boring holes; maintaining material identification; deburring workpiece; performing final inspection; moving workpiece; completing work documentation, and, practising good housekeeping.

Skills

U5563.01 Select milling cutting tools including (not limited to) end mills, face mills, shell cutters, slot drills, boring bars, slitting saws, and boring head, by using information from engineering drawings and job instructions to ensure that the tools selected are the correct ones needed to mill the workpiece to 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.**

U5563.02 Identify and prepare milling cutting tools by sharpening or replacing tools so that the cutting shape and angle is prepared for optimum 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

U5563.03 Set-up and maintain milling adjustable support tools including (not limited to) indexing heads, vises, angle plates, sine bars, and 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 job specifications and Safety Legislation.

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

U5563.04 Set up milling cutting tools to required operational alignments using arbors, collets, and drill chucks, to ensure that the tools are in position and held securely during machining in accordance with job specifications.

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

U5563.05 Select speeds and feeds of mill using speed and feed charts and in accordance with size, type, and hardness of workpiece material, so that the mill performs optimum cutting without damage to the workpiece, cutting tools, or machine and ensures personal safety.

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

U5563.06 Perform fly-cutting using a milling machine, single-point tool bit, and required cutting fluid, so that the size, shape, squareness, and flatness of the fly-cut workpiece conform to engineering drawings and job specifications.

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

U5563.07 Face-mill using a milling machine, multi-point tool bit, face mill, and required cutting fluids, so that the size, shape, squareness, and flatness of the faced workpiece conform to engineering drawings and job specifications.

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

U5563.08 Machine steps, cut-outs, angles, and open slots using a milling machine, end mill, and required cutting fluid, so that the size, shape, and angle of the end- milled workpiece conform to engineering drawings and job specifications.

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

U5563.09 Machine a pocket or slot using a milling machine, slot drill, center cutting end mill, and required cutting fluid, so that the size, shape, and angle of milled pockets or slots conform to engineering drawings and job specifications.

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

U5563.10 Machine a hole using a milling machine, drill bits, reamers, slot drills, and required cutting fluid, so that the diameter, depth, and tolerance of the milled hole conform to engineering drawings and job specifications.

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

U5563.11 Bore holes using a milling machine, boring bar, boring head, and required cutting fluid, so that the diameter, finish, depth and location of the bored hole conform to engineering drawings and job specifications.

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

U5563.12 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

U5563.13 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 engineering drawings, job specifications, and Safety Legislation.

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

U5563.14 Perform final inspection using precision measuring and checking devices instruments including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the milled workpiece conform to the engineering drawings and job specifications.

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

U5563.15 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains to remove, transport, and store materials, parts, and equipment in compliance with Safety Legislation and company standards/procedures.

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

U5563.16 Complete work documentation including (not limited to) tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5563.17 Practise good 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 and equipment are in place and available, in compliance with company standards/procedures and Safety Legislation.

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

U5564.00 Perform Numerically Controlled(NC)/Computerized Numerically Controlled(CNC) Machining**General Performance Objective**

Perform NC/CNC machining by: identifying and selecting numerically controlled process; identifying, selecting, and setting up cutting tools and tool holders; identifying, selecting, and setting machine parameters; positioning, aligning, and securing workpiece in machine; inputting and verifying part program to the machine control; verifying tool sequence, tool path, and collision avoidance program; monitoring machining process; making adjustments to tooling and offsets; maintaining material identification; performing final inspection; moving workpiece; completing work documentation; and, practising good housekeeping.

Skills

U5564.01 Identify and select numerically controlled machining process including Numerically Controlled (NC) and Computerized Numerically Controlled (CNC) machines, using information from the engineering drawings and job specifications to ensure that machining process selected is the correct one to make the parts or components.

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.**

U5564.02 Identify, select, and set up NC/CNC cutting tools and tool holders including tool holders, end and face mills, carbide insert tools, centre-drill, drill, taps, reamers, counter bores, and boring head, to pre-determined reference points, by using information from the engineering drawings, prepared sequence sheet, and tool lists to ensure that tools and tooling selected are the correct ones to machine- cut the workpiece efficiently and safely.

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

U5564.03 Identify, select and set machine parameters including spindle feeds, table feeds, and power settings using speed and feed charts and according to the type, size, grade, and hardness of material to be cut, so that the workpiece is machined efficiently and safely without damage to tooling, machine, or workpiece and ensures personal safety, in accordance with CAD data, job specifications, and engineering drawings.

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

U5564.04 Position, align, and secure workpiece in NC/CNC machine to specified datums and required alignments, using devices, 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 with job specifications and Safety Legislation.

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

U5564.05 Input and verify part program to the NC/CNC machine control 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 conform to the CAD data, engineering drawings and job specifications.

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

U5564.06 Verify tool sequence, tool path, and collision avoidance program, by performing a dry run and editing program as required, to ensure that workpiece is machined in accordance with CAD data, engineering drawings and job specifications.

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

U5564.07 Monitor NC/CNC machining process by interrupting machining, measuring or checking dimensions, and making adjustments to machine feeds, speeds, and offsets, so that the dimensions, shape, and tolerances of the machined workpiece are maintained during machining in conformance with engineering drawings, CAD data, and job specifications.

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

U5564.08 **Make adjustments to tooling and offsets** so that the displayed or modified offsets and tooling conform with CAD data, engineering drawings, and job specifications.

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

U5564.09 **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

U5564.10 **Perform final inspection** using precision measuring and checking devices instruments including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the machined workpiece conform to the engineering drawings and job specifications.

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

U5564.11 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, and equipment in compliance with Safety Legislation and company standards/procedures.

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

U5564.12 Complete work documentation including (not limited to) data sheets, tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5564.13 Practise good 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 compliance with company standards/procedures and Safety Legislation.

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

U5565.00 Perform Electrical Discharge Machining (EDM)**General Performance Objective**

Perform EDM machining by: identifying and selecting EDM machining process; developing electrodes; identifying, selecting, and setting up EDM machining components; identifying, selecting, and setting machine parameters; positioning, aligning, and securing workpiece in EDM machine; cutting the workpiece; maintaining material identification; performing final inspection; moving workpiece; completing work documentation; and, practising good housekeeping.

Skills

U5565.01 Identify and select Electrical Discharge Machining (EDM) process using information from CAD data, engineering drawings and job specifications to ensure that process selected is the correct one to cut parts or components.

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.**

U5565.02 Develop EDM electrodes by selecting the correct material according to the workpiece material, complexity and quantity of electrodes, surface finish, tolerances, flushing or removal rates, engineering drawings, and job specifications.

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

U5565.03 Identify, select, and set up EDM machining components including cutting tools, tool holders, EDM wire and guides, to pre-determined reference points by using information from the engineering drawings, prepared sequence sheet, and tool lists, to ensure that tools and tooling selected are the correct ones to cut the workpiece efficiently and safely.

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

U5565.04 Identify, select and set machine parameters including rotations, flushing rates, and power settings using speed and feed charts and according to the type, size, grade, and hardness of material to be cut, so that the workpiece is machined efficiently and safely without damage to tooling, machine, or workpiece and ensures personal safety in accordance with engineering drawings and job specifications.

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

U5565.05 Position, align, and secure workpiece in EDM machine to specified datums and required alignments using workholding devices to locate and position the workpiece and ensure maximum stability during machining, in accordance with engineering drawings and job specifications.

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

U5565.06 Cut the workpiece by electrical discharge machining and measuring or checking using verniers, depth micrometer, and indicators, so that the completed shape, contour, and size of the machined workpiece conform to engineering drawings and job specifications.

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

U5565.07 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 and job specifications.

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

U5565.08 Perform final inspection using precision measuring and checking devices instruments including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges, to ensure that the tolerances and dimensions of the completed workpiece conform to the engineering drawings and job specifications.

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

U5565.09 Move workpiece by operating lifting and rigging equipment including (not limited to) hoists, overhead cranes, chain falls, lift pins, eye bolts, slings, cables, and chains, to remove, transport, and store materials, parts, or equipment in compliance with Safety Legislation and company standards/procedures.

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

U5565.10 Complete work documentation including (not limited to) tracking sheets, sign-off sheets, 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 engineering drawings, job specifications, and company standards/procedures.

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

U5565.11 Practise good 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 compliance with company standards/procedures and Safety Legislation.

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

U5566.00 Devise and Detail a Plan for the Tool/Tooling-Build Process**General Performance Objective**

Devise and detail a plan for the tool/tooling-build process by: verifying the features of tool/tooling components; developing and organizing a tool/tooling-building plan; performing tool/tooling-building related calculations; assembling and verifying tool/ tooling stock materials; producing a detailed sketch of tool/tooling components.

Skills

U5566.01 Verify features of tool/tooling components by reading bill of materials, engineering drawings, component prints, assembly, tool and part drawings to correctly identify: type of tool or tooling: tolerances; sizes; diameters; drawing revision level; projection; section views; pick-up datum point; shapes; number of working components; material specifications; assembly process; number of functions; and, quantity and type of parts; so that all required component features are identified, checked, and verified.

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.**

U5566.02 Develop and organize a tool/tooling-build plan to identify and document: types of machines and tools; job operations; sequencing of job; machining processes; required fixtures and tooling; and, the machining, assembly, and fabrication processes; so that all features of the tool/tooling plan are correctly identified and conform to engineering drawings, bill of materials, scheduled target dates, company standards/procedures, and job specifications.

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

U5566.03 Perform tool/tooling build related calculations using conversion tables or charts, material and product-specification tables or charts, and occupational graphs, to correctly identify clearances, tolerances, and contraction or expansion variables, so that all tool/tooling dimensions, tolerances, sizes, and shapes are accurately determined and documented in accordance with engineering drawings, bill of materials, company standards/procedures, and job specifications.

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

U5566.04 Assemble and verify stock materials for surface condition, hardening ability, heat-treat response, type, grade, and dimensions, by checking colour codes, lettering, numerical stamps, charts, and stock lists, to ensure that the workpiece materials are the correct ones to build the tools in accordance with the company standards/procedures, engineering drawings, and job specifications.

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

U5566.05 Produce a detailed sketch of tool/tooling using engineering drawings and tool or part drawings, so that the components and assemblies are correctly identified and sketched for shape, dimensions, tolerances, finishes, and assembly interrelationship.

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

U5567.00 Develop, Build, and Fit Tools/Tooling (Production, Mechanical Devices, and Prototypes)

General Performance Objective

Develop, build, and fit tools/ tooling (production, mechanical devices, and prototypes) by: organizing the tool/tooling build plan; producing preliminary sketches; building tool/tooling aids; cutting and preparing raw material; blocking up and establishing datum; machining production tooling and components; machining prototypes and components; machining mechanical device components; heat-treating tool/tooling components; marking tool/tooling components; inspecting tool/tooling components; documenting tool/tooling production.

Skills

U5567.01 Verify features of tools/tooling components by reading bill of materials, engineering drawings, component prints, assembly, or part drawings to correctly identify: type of tool/ tooling including (not limited to) production, mechanical devices, or prototypes; tolerances; sizes; diameters; revision level; projection and section views; pick-up or datum point; component shapes; number of working components; material specifications; thickness and type of workpiece material; assembly process; number of functions; quantity and type of parts, tool, and tooling; ensuring that all required component features are checked and identified.

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.**

U5567.02 Produce preliminary sketches from job specifications and engineering drawings, so that the components and assemblies are correctly identified and sketched for shape, dimensions, functions, tolerances, finishes, and part or assembly interrelationship and processes.

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

U5567.03 **Organize the tool/ tooling-build plan** to identify and document: type of machining process; job operations; sequencing of jobs; required tooling aids, fixtures and tooling; and, assembly and fabrication sequences or processes; so that all features of the building process conform to the prepared build plan, engineering drawings, scheduled target dates, bill of materials, company standards/procedures, and job specifications.

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

U5567.04 **Build tooling aids** including workholding and support fixtures, so that the reference features, size, shape, and finish of the tooling aid is accurately produced to assist in the building process in conformance to the prepared sketches or build plan, company standards/procedures, and job specifications.

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

U5567.05 Cut and prepare raw material to specified lengths and allowances by machining using a bandsaw or abrasive cut-off wheels and by checking dimensions using tape or scale, so that the rough-machined part conforms to engineering drawings, company standards/procedures, and job specifications.

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

U5567.06 Block up and establish datum on the workpiece by machining with mill or lathe machines and by checking with micrometers, verniers, and height gauges, so that datum faces are identified and the height, width, squareness, and allowances of the blocked-up workpiece conform to engineering drawings and job specifications.

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

U5567.07 Machine production tool/tooling and components including (not limited to) jigs, fixtures, templates, gauges, measuring tools, comparators, cutting or forming tools, tool holders, and work aids by: using prepared sketches and build-plan; following pre-determined machining processes; and, measuring or checking using gauge blocks, micrometers, verniers, height gauges, and dial test indicators; so that dimensions, shapes, tolerances, and surface finish of the machined components conform to the engineering drawings, company standards/procedures, and job specifications.

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

U5567.08 Machine prototypes and components including (not limited to) models, specimens, gauges, or specialized tools and instruments by: using preliminary sketches and build-plan; following pre-determined machining processes; and, measuring or checking using gauge blocks, micrometers, verniers, height gauges, and dial test indicators; so that the dimensions, shapes, tolerances, and surface finish of the machined components conform to the engineering drawings, company standards/procedures, and job specifications.

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

U5567.09 Machine mechanical device components including (not limited to) shaft and pulleys, levers, pins, springs, brackets, bushings, couplings, fasteners, tubes, flanges, housings, plates, blocks, vessels, or guide ways by: using prepared sketches and build-plan; following pre-determined machining processes; and, measuring or checking using gauge blocks, micrometers, verniers, height gauges, and dial test indicators; so that the dimensions, shapes, tolerances, and surface finish of the machined components conform to the engineering drawings, company standards/procedures, and job specifications.

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

U5567.10 Heat-treat components using heat treating equipment or tools and following required procedures so that components are tempered and hardened as specified in the engineering drawings, job specifications, company standards/procedures and Safety Legislation.

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

U5567.11 Mark the components by marking item number, hardness factor, and type of material on the workpiece using marking stamps and etching or engraving tools, to ensure traceability of components in accordance with company standards/procedures.

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

U5567.12 Inspect tool/tooling components using precision measuring and checking equipment including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, pin gauges, and Co-ordinate Measuring Machine (CMM), to ensure that the tolerances and dimensions of the completed workpiece conforms to engineering drawings, company standards/procedures, and job specifications.

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

U5567.13 Document tool/tooling production to identify: materials; job sequences; procedures and processes utilized in the design; and, production information ensuring that all development information is clearly and accurately recorded 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

U5568.00 Fit and Assemble Tools/Tooling

General Performance Objective

Fit and assemble tools/tooling by: surface-finishing tools/tooling components; marking the tools/tooling components; assembling and fitting tools/tooling components; final-fitting sub- assemblies and components; inspecting fit and function of tools/tooling; performing final inspection; documenting assembly and fit of tools/tooling.

Skills

U5568.01 Surface-finish tools/tooling components using grinders, files, oil stones, and abrasive cloths to remove machining marks or burrs and to establish a final contour, ensuring that the surface blend, finish, size, or shape of the part conform with the engineering drawings, company standards/procedures, 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.**

U5568.02 Mark the tools/tooling components using marking stamps and etching or engraving tools to mark the item number, hardness factor, and type of material on to the workpiece, to facilitate traceability of components in accordance with company standards/procedures and job specifications.

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

U5568.03 Assemble and fit tools/tooling components by following required procedures including (not limited to): fastening; dowelling; fitting; soldering; and, measuring or checking; so that the components and sub-assemblies are aligned, mated, and assembled in accordance with the engineering drawings, company standard/procedures, and job specifications.

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

U5568.04 Final-fit sub-assemblies and components by following required procedures including (not limited to): fastening; dowelling; fitting; soldering; and, measuring or checking; so that the assembly is aligned, mated, and assembled as specified in engineering drawings, company standards/procedures, and job specifications.

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

U5568.05 Inspect fit and function of tools/tooling by: trying out tools/tooling; checking tool/tooling components for failure, wear, or defects; and, making adjustments; to ensure that the fit and function of tools/tooling conform to engineering drawings, company standards/procedures, and job specifications.

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

U5568.06 Perform final inspection using precision measuring and checking equipment including (not limited to) inside and outside micrometers, vernier height gauges or indicators, gauge blocks, pin gauges, or Co-ordinate Measuring Machine (CMM) to ensure that the tolerances and dimensions of the completed workpiece conform to engineering drawings and job specifications.

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

U5568.07 Document assembly and fit of tools/tooling to identify and document: materials; sequence; assembly and fitting procedures; and processes utilized in the design and production of the tools/tooling; ensuring that all assembly and fitting information is clearly and accurately recorded 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

U5569.00 Final-Finish Tools/Tooling Surface Contours**General Performance Objective**

Final-finish tools/tooling surface contours by: identifying and selecting finishing tools; finishing tool/tooling surfaces; detailing the workpiece; cleaning finished surfaces; final inspecting the surfaces; and completing work documentation.

Skills

U5569.01 Identify and select finishing tools including (not limited to) rifflers, hand grinders, abrasive compounds and cloths, oil and water stones, files, and/or burrs, by using information from engineering drawings and job specifications to ensure that the hand-finishing tools selected are the correct ones to final-finish the workpiece.

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.**

U5569.02 Finish tool/tooling surfaces by using required tools and performing polishing, filing, lapping, honing, and deburring techniques to remove tool and cutter marks, burrs, and excess material, so that the surface finish conforms with engineering specifications, company standards/procedures, and job specifications.

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

U5569.03 Detail the workpiece by hand-engraving using carbide burrs, grinding wheels, chisels, files, air or electric hand tools, and punches, so that the shape and profile of the detailed workpiece conform with the engineering drawings, company standards/procedures, and job specifications.

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

U5569.04 Clean finished surfaces using burrs, solvents, cleaning compounds, compressed air, or water to remove debris, abrasive deposits, grease, oil, and layout medium, so that tools/tooling is cleaned and prepared for final assembly and inspection in accordance with engineering drawings, company standards/procedures, and job specifications.

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

U5569.05 Final inspect the surface by using measuring and checking equipment including (not limited to) templates, CMM, modeling compounds, low heat metal, surface indicators, optical comparators, or microscopes to ensure that the integrity of the tool/tooling surface conforms to the engineering drawings, company standards/procedures, and job specifications.

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

U5569.06 Complete work documentation including (not limited to) tracking sheets, sign- off sheets, inspection reports, or procedure sheets to record the finalization of jobs and traceability of work in process, ensuring that all data is recorded accurately and clearly in accordance with engineering drawings, job specifications, and company standards/procedures.

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

U5569.07 Practise good 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 compliance with company standards/procedures and Safety Legislation.

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.

Journeyperson

Journeyperson means an individual who holds a certificate of qualification (in a compulsory or non-compulsory trade) and/or an individual who practices as a journeyperson 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.

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 Journeyperson 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

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 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 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 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 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 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 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
5555.0	Protect Self and Others	
5556.0	Plan and Prepare for Machining Job	
5557.0	Perform Work-in-Process Dimensional or Surface Verification	
5558.0	Perform Benchwork	
5559.0	Perform Sawing	
5560.0	Perform Drilling Using Drill Press/Machine	
5561.0	Perform Machine Grinding	
5562.0	Perform Lathe Work	
5563.0	Perform Milling	
5564.0	Perform Numerically Controlled (NC)/Computerized Numerically Controlled (CNC) Machining	
5565.0	Perform Electrical Discharge Machining (EDM)	
5566.0	Devise and Detail a Plan for the Tool/Tooling-Build Process	
5567.0	Develop, Build, and Fit Tools/Tooling (Production, Mechanical Devices, and Prototypes)	
5568.0	Fit and Assemble Tools/Tooling	
5569.0	Final-Finish Tool/Tooling Surface Contours	

Ministry of Labour, Immigration, Training and Skills Development use only:

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

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

Competency Analysis Profile (CAP) Chart

5555.0 Protect Self and Others	5555.01 Identify health and safety hazards.	5555.02 Wear, adjust, and maintain personal protective equipment.	5555.03 Wear, adjust, and maintain respiratory protectors.	5555.04 Practise safe work habits.	5555.05 Follow fire procedures.
	5555.06 Operate emergency safety equipment.	5555.07 Practise industrial hygiene.	5555.08 Practise good housekeeping in the workplace.	5555.09 Conduct pre-operational check of equipment.	5555.10 Report injuries.
	5555.11 Follow procedures for applying first aid.	5555.12 Lock out and tag mechanical equipment.	5555.13 Handle designated substances.	5555.14 Operate lifting equipment.	
5556.0 Plan and Prepare for Machining Job	5556.01 Read and interpret engineering drawings.	5556.02 Perform calculations for machining operations.	5556.03 Read and interpret work-process documentation.	5556.04 Verify workpiece material.	5556.05 Identify and select cutting fluids.
	5556.06 Identify and select machines.	5556.07 Identify and check machine controls and systems.	5556.08 Identify and select tooling.	5556.09 Identify and prepare cutting tools.	5556.10 Identify and select measuring instruments and checking devices.

(continued on next page)

Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

5556.0 Plan and Prepare for Machining Job <i>(continued)</i>	5556.11 Select machine speeds and feeds.	5556.12 Lay out features of engineering drawings.	5556.13 Identify and select work-holding devices.	5556.14 Pick up datum/starting position.	5556.15 Identify and select lifting and rigging equipment.
	5556.16 Communicate with co-workers.				
5557.0 Perform Work-in-Process Dimensional or Surface Verification	5557.01 Check straight cuts.	5557.02 Check shapes.	5557.03 Check threads.	5557.04 Check holes.	5557.05 Check tapers.
	5557.06 Check hardness.	5557.07 Maintain material identification.	5557.08 Deburr workpiece.	5557.09 Check surfaces.	5557.10 Perform final inspection.
	5557.11 Complete work documentation				
5558.0 Perform Benchwork	5558.01 Hand-file.	5558.02 Hand-saw.	5558.03 Hand-drill holes.	5558.04 Hand-tap threaded holes.	5558.05 Hand-ream.
	5558.06 Chase threads.	5558.07 Hand-grind.	5558.08 Practise good housekeeping		

Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

5559.0 Perform Sawing	5559.01 Check fused/welded blade.	5559.02 Lay out features of engineering drawings.	5559.03 Locate and position workpiece in saw.	5559.04 Select speeds and feeds of saw.	5559.05 Install and test-run blade.
	5559.06 Check first cut-off.	5559.07 Cut shapes using a vertical bandsaw.	5559.08 Cut squared and angled surfaces using a power cut-off saw.	5559.09 Maintain material identification.	5559.10 Debur workpiece.
	5559.11 Perform final inspection.	5559.12 Complete work documentation.	5559.13 Move workpiece.	5559.14 Practise good housekeeping.	
5560.0 Perform Drilling Using Drill Press/Machine	5560.01 Select drill tooling.	5560.02 Identify and prepare cutting tools for drills.	5560.03 Locate and position workpiece in drill.	5560.04 Set up tooling in drills.	5560.05 Select speeds and feeds of drill.
	5560.06 Centre-drill a layout punch mark.	5560.07 Drill a hole.	5560.08 Chamfer a hole.	5560.09 Ream a hole.	5560.10 Machine-thread a hole.
	5560.11 Spot-face a hole.	5560.12 Counter-bore a hole.	5560.13 Counter-sink a hole.	5560.14 Maintain material identification.	5560.15 Debur workpiece.
	5560.16 Perform final inspection.	5560.17 Move workpiece.	5560.18 Practise good housekeeping.	5560.19 Complete work documentation.	

Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

5561.0 Perform Machine Grinding	5561.01 Select grinding wheel.	5561.02 Check condition of grinding wheel.	5561.03 Install grinding wheel.	5561.04 Locate and position workpiece in grinder.	5561.05 Surface grind workpiece.
	5561.06 Hone holes.	5561.07 Lap workpiece.	5561.08 Grind inside and outside diameters. (ID/OD)	5561.09 Grind tools and cutters.	5561.10 Check surfaces.
	5561.11 Perform final inspection.	5561.12 Move workpiece.	5561.13 Complete work documentation.	5561.14 Practise good housekeeping.	
	5562.01 Select lathe cutting tools.	5562.02 Identify and prepare lathe cutting tools.	5562.03 Locate and position workpiece in lathe.	5562.04 Set up lathe cutting tools.	5562.05 Select speeds and feeds of lathe.
	5562.06 Take a sizing (preliminary) cut.	5562.07 Establish a reference or starting point (datum).	5562.08 Face a surface.	5562.09 Turn an external diameter.	5562.10 Drill a hole.
	5562.11 Bore an internal diameter.	5562.12 Ream a hole.	5562.13 Tap a hole.	5562.14 Turn an internal or external thread.	5562.15 Produce a taper.

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Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

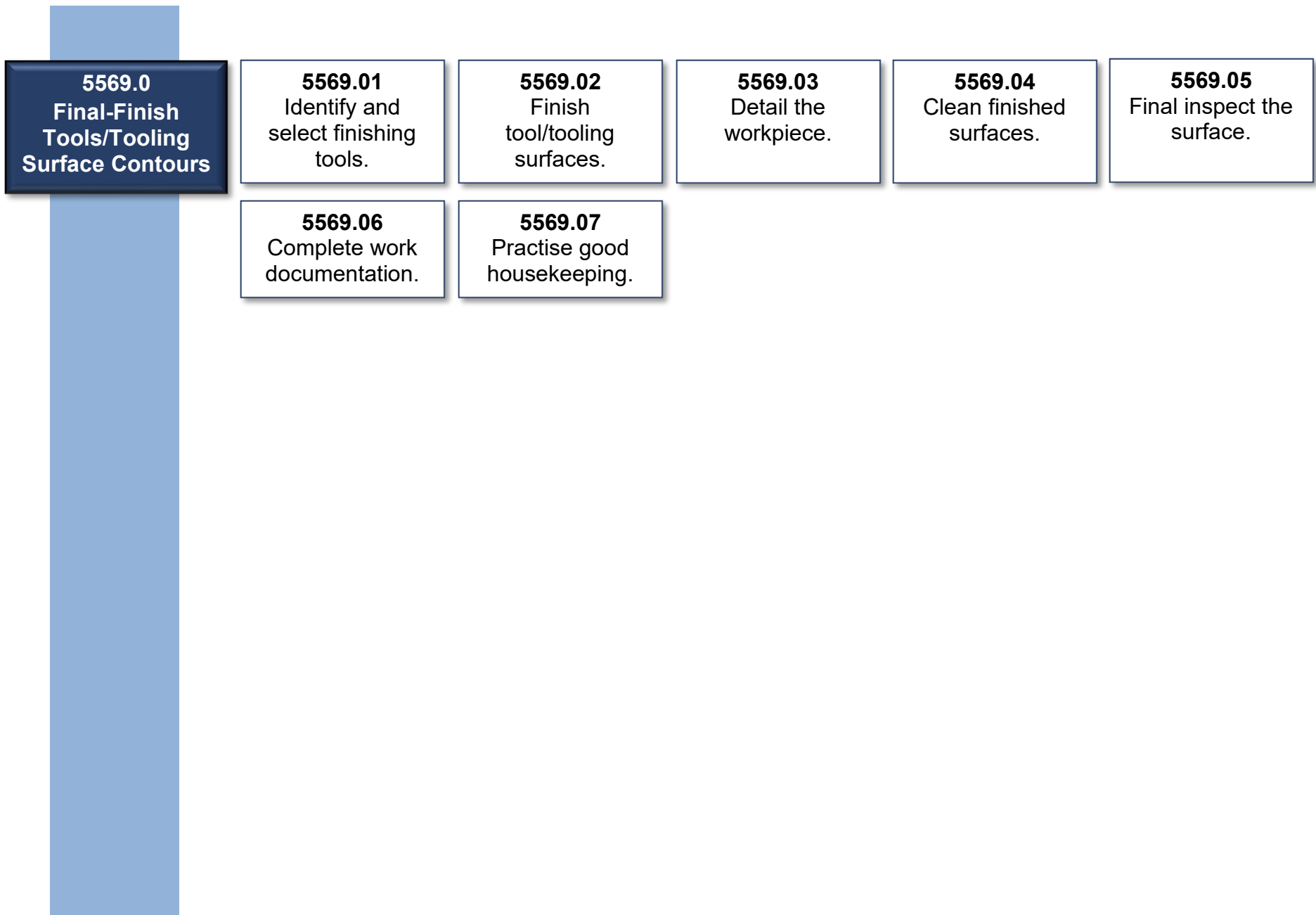
5562.0 Perform Lathe Work <i>(continued)</i>	5562.16 Knurl cylindrical surface patterns.	5562.17 Groove and part-off.	5562.18 Maintain material identification.	5562.19 Deburr workpiece.	5562.20 Perform final inspection.
	5562.21 Complete work documentation.	5562.22 Move workpiece.	5562.23 Practise good housekeeping		
5563.0 Perform Milling	5563.01 Select milling cutting tools.	5563.02 Identify and prepare milling cutting tools.	5563.03 Set-up and maintain milling adjustable support tools.	5563.04 Set-up milling cutting tools.	5563.05 Select speeds and feeds of mill.
	5563.06 Perform fly-cutting.	5563.07 Face-mill.	5563.08 Machine steps, cut-outs, angles, and open slots.	5563.09 Machine a pocket or slot.	5563.10 Machine a hole.
	5563.11 Bore holes.	5563.12 Maintain material identification.	5563.13 Deburr workpiece.	5563.14 Perform final inspection.	5563.15 Move workpiece.
	5563.16 Complete work documentation.	5563.17 Practise good housekeeping.			

Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

5564.0 Perform NC/CNC	5564.01 Identify and select numerically controlled machining process.	5564.02 Identify, select, and set up NC/CNC cutting tools and tool holders.	5564.03 Identify, select, and set machine parameters.	5564.04 Position, align, and secure workpiece in NC/CNC machine.	5564.05 Input and verify part program at NC/CNC machine controls.
	5564.06 Verify tool sequence, tool path, and collision avoidance program.	5564.07 Monitor NC/CNC machining process.	5564.08 Make adjustments to tooling and offsets.	5564.09 Maintain material identification.	5564.10 Perform final inspection.
	5564.11 Move workpiece.	5564.12 Complete work documentation.	5564.13 Practise good housekeeping.		
	5565.01 Identify and select EDM process.	5565.02 Develop EDM electrodes.	5565.03 Identify, select, and set up EDM machining components.	5565.04 Identify, select, and set machine parameters.	5565.05 Position, align, and secure workpiece in EDM machine.
	5565.06 Cut the workpiece by EDM.	5565.07 Maintain material identification.	5565.08 Perform final inspection.	5565.09 Move workpiece.	5565.10 Complete work documentation.
	5565.11 Practise good housekeeping.				

Competency Analysis Profile: Tool/Tooling Maker 630T *(all unshaded skill sets must be completed)*

<div>5566.0</div> <div>Devise and Detail a Plan for the Tool/Tooling Building Process</div>	<div>5566.01</div> <div>Verify the features of too/tooling components.</div>	<div>5566.02</div> <div>Develop and organize tool/tooling building plan.</div>	<div>5566.03</div> <div>Perform tool/tooling build related calculations.</div>	<div>5566.04</div> <div>Assemble and verify stock materials.</div>	<div>5566.05</div> <div>Produce a detailed sketch of tool/tooling</div>
	<div>5567.01</div> <div>Verify features of tools/ tooling components.</div>	<div>5567.02</div> <div>Produce preliminary sketches.</div>	<div>5567.03</div> <div>Organize the tool/tooling build plan.</div>	<div>5567.04</div> <div>Build tooling aids.</div>	<div>5567.05</div> <div>Cut and prepare raw material.</div>
	<div>5567.06</div> <div>Block up and establish datum.</div>	<div>5567.07</div> <div>Machine production tools/tooling & components.</div>	<div>5567.08</div> <div>Machine prototypes and components.</div>	<div>5567.09</div> <div>Machine mechanical device components.</div>	<div>5567.10</div> <div>Heat-treat components.</div>
	<div>5567.11</div> <div>Mark the components.</div>	<div>5567.12</div> <div>Inspect tool/tooling components.</div>	<div>5567.13</div> <div>Document tool/tooling production.</div>		
	<div>5568.01</div> <div>Surface finish tools/tooling components.</div>	<div>5568.02</div> <div>Mark the tools/tooling components.</div>	<div>5568.03</div> <div>Assemble and fit tools/tooling components.</div>	<div>5568.04</div> <div>Final-fit sub-assemblies and components.</div>	<div>5568.05</div> <div>Inspect fit and function of tools/tooling.</div>
	<div>5568.06</div> <div>Perform final inspection.</div>	<div>5568.07</div> <div>Document assembly and fit of tools/tooling.</div>			



Notes

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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



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