

Contest Description

Edmonton Expo Centre, Edmonton

May 6 & 7, 2026

EVENT: CNC Machining	LEVEL: Post-Secondary														
WORLDSKILLS TRADE #: 06	LOCATION: Hall C, Edmonton Expo Centre, Edmonton														
DURATION: 12 Hours (over 2 days)															
COMPETITION SCHEDULE: <div> <div> May 6: <table border="1"> <tr> <td>ORIENTATION</td><td>8:00AM-9:00AM</td></tr> <tr> <td>COMPETITION</td><td>9:00AM-NOON</td></tr> <tr> <td>LUNCH</td><td>12:00 NOON-1:00PM</td></tr> <tr> <td>COMPETITION</td><td>1:00PM-4:00PM</td></tr> </table> </div> <div> May 7: <table border="1"> <tr> <td>COMPETITION</td><td>8:00AM-11:00AM</td></tr> <tr> <td>LUNCH</td><td>11:00AM-NOON</td></tr> <tr> <td>COMPETITION</td><td>12:00 NOON-3:00PM</td></tr> </table> </div> </div>		ORIENTATION	8:00AM-9:00AM	COMPETITION	9:00AM-NOON	LUNCH	12:00 NOON-1:00PM	COMPETITION	1:00PM-4:00PM	COMPETITION	8:00AM-11:00AM	LUNCH	11:00AM-NOON	COMPETITION	12:00 NOON-3:00PM
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Please Note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for the last updated date. Changes will be highlighted in **yellow**.

CONTEST INTRODUCTION

CNC machinists' program and operate automated machine tools to make products from raw materials for various industries. Nearly all consumer goods have been machined or are manufactured from tools or equipment which have been manufactured by a machinist.

SKILLS AND KNOWLEDGE TO BE TESTED

The competition will take place over two days (six hours of competition per day). The competition involves machining a turning project on a CNC turning center and a milling project on a CNC machining center. Competitors will be required to read and interpret engineering drawings, use CAD/CAM software to program machine tools, and machine a precision component on a CNC machining center or CNC turning center using appropriate machining operations.



PROJECT DESCRIPTION

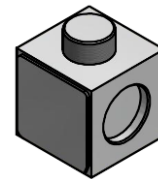
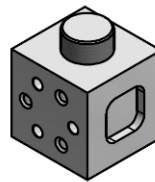
CNC Turning Centre (Haas Control)

- Safe operating procedures
- Applied metrology
- Word address and CAM programming
- Appropriate sequence of operations
- External and internal cylindrical turning
- Taper turning
- Grooving (OD, ID, and/or Face)
- Threading (straight & tapered, internal & external)



CNC Vertical Machining Centre (Haas Control)

- Safe operating procedures
- Applied metrology
- Word address and CAM programming
- Appropriate sequence of operations
- Profile, pocket and thread milling
- Hole operations



EQUIPMENT & MATERIALS

Skills Canada Alberta Provided Tools, Materials, and Equipment

Measuring Tools	Mill Tooling	Lathe Tooling
Mastercam Software	Hand Tools	
Laptop	Workpiece Materials	

Please Note:

- Workpiece materials may include mild steel, alloy steel, or aluminum
- Competitors may be required to share some of the supplied tools and equipment.
- The CNC machines will have the appropriate tooling installed and tool length information established prior to the start of the competition.
- Competitors will be responsible for establishing work piece coordinates (work offsets).



Competitor Provided Tools, Materials, and Equipment

CSA Approved Safety Glasses	CSA Approved Steel Toed Footwear	CSA Approved Hearing Protection (CANNOT send or receive info-Bluetooth headsets not allowed)
Shop Coat or Coveralls (Optional)		

JUDGING CRITERIA

	Mill	Lathe
Project Completion	2.5%	2.5%
Compliance with Occupational Health and Safety regulations	2.5%	2.5%
Compliance with dimensions, tolerances, and fits as specified in plans	30%	30%
Theory Exam	10%	10%
Compliance with appropriate surface finish and deburring	5%	5%
	50%	50%
	Total 100%	

Important Notes:

- If a second work piece blank is required, the competitor will lose 20% from the *“Compliance with dimensions, tolerances and fits as specified in plans”* section.
- Projects will NOT be accepted for judging until the machinery and tooling used for the manufacture of the project is cleaned to the satisfaction of a committee member. **NO EXCEPTIONS.**

TIE BREAKING PROCESS

The time required by the competitors to complete their projects will determine the tie breaker.

Competition Specific Rules

The following Competition Specific rules along with SCA's overall Policies and Procedures provide specific details in competition areas that may vary from one another. Any additional contest rules will be reviewed during the Competitor Orientation.



Topic/Task	Contest Specific Rule
Use of technology – Devices	<ul style="list-style-type: none"> Programmable calculators, cell phones, and other devices using digital memory are prohibited in the shop area.
Drawings and documentation	<ul style="list-style-type: none"> No drawings, notes, or other information recorded or calculated by the competitors are permitted to be taken outside the shop area.
Tooling, equipment, and software	<ul style="list-style-type: none"> Competitors are prohibited from using tooling, software, or equipment that is not provided by the committee for contest purposes. Competitors are prohibited from changing any parameters or settings on supplied devices or machinery.
Equipment failure	<ul style="list-style-type: none"> Extra time will only be allowed in the event of failure of any supplied tooling or equipment if the technician of the sponsor, supplying company, or committee expert deems the failure was not caused by user error.
Access to workshop	<ul style="list-style-type: none"> No individual (competitor or non-competitor) will be permitted into the workshop area without the appropriate personal protective equipment (see Equipment & Materials for details) Competitors are required to follow all industry safety standards during the competition.
Responsibility for CNC Programs	<ul style="list-style-type: none"> CNC programs generated by CAD/CAM software are the responsibility of the competitor. Incorrect code output by the CAD/CAM system resulting in a machining error or machine collision, regardless of the reason, is deemed to be the fault of the competitor and no additional time will be given. It is the competitor's responsibility to verify the code. Any code entered into the machine must be carefully checked by the competitor prior to operating the machine. The competitor should request assistance from a PTC member regarding any perceived issues with the CAD/CAM system or its output.
Video recording and display	<ul style="list-style-type: none"> Cameras may be installed inside machinery and displayed on monitors to allow competition spectators to view the machining processes. Video feeds will be in real time and will not be recorded.

CLOTHING REQUIREMENT

Appropriate work clothing must be worn to compete. All clothing must be neat and clean, and free of rips and tears. Casual wear such as shorts, sleeveless shirts, and open-toed shoes/sandals will not be permitted. Long hair must be tied back. No loose-fitting clothes or jewelry. Short-sleeved shirts are permitted.



ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations

[Regional and Provincial Rules and Regulations](#)

Skillz & Thrillz Podcast

Check out our podcast – Skillz & Thrillz: Alberta’s Trade & Tech Youth Podcast. Our talented alumni share tips and tricks on how to succeed in competitions and your career! Their insights can help you prepare for your Skills journey, and who knows, you might just be a future guest!

<https://skillsalberta.com/student-resources/skillz-thrillz-albertas-trade-tech-youth-podcast/>

Test Project Change at the Competition

Where a Test Project has been circulated to competitors in advance, the PTC can change the project up to a maximum of 30% of the work content for the competition.

Lunch

Lunch for competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps

Parking is FREE for all attendees.

Attendees **MUST** register for FREE parking by clicking the below link. Attendees can pre-register their vehicle at anytime prior to the PSCC or register onsite at the PSCC.

<https://www.offstreet.io/events/CBLHM7U1>

<http://edmontonexpocentre.com/attend/parking/>

Opening Ceremonies / Competitor Onsite Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 5, 2026, at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremonies.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 7, 2026, at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at <http://skillsalberta.com/>

Team Alberta Information

Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 27- May 30, 2026, in Toronto, Ont. It is recommended that competitors review and become familiar with the SCNC contest description and project at





<https://www.skillscompetencescanada.com/en/event/skills-canada-national-competition-2026/>

During the PSCC Awards Ceremony on Thursday May 7, 2026, Gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next highest-ranking individual will be asked to participate. If a student is not able to attend the Awards Ceremony an email confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 6, 2026.

Please prepare your students in advance to accept a position on Team Alberta and review how your school will support their participation.

Please see this link for additional Team Alberta information: <https://skillsalberta.com/team-alberta/>

Questions?

Please contact Mike Sury MikeS@SkillsAlberta.com

COMMITTEE MEMBERS

Brandon Walker	Ryan Reeves	Lee Blakely
Phillip Townsend	Tim Wong	Marko Crepulja
Rob Fortier	Graham Greenhall	Darren Roth

