

2022 SECONDARY SKILLS CANADA ALBERTA VIRTUAL COMPETITION

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CONTEST DESCRIPTION

CONTEST AREA: PRECISION MACHINING			LEVEL: Secondary
COMPETITION SCHEDULE: Competition Date: Monday April 11 th , 2022 Duration: 6 Hours			LOCATION: COMPETITOR’S SCHOOL. SEE COMPETITION FORMAT INFORMATION BELOW
Registration (Mandatory) Orientation	Monday, April 11	8:15AM 8:30-9:00AM	LIVESTREAMED: YES – COMPETITORS WILL BE REQUIRED TO BE ON CAMERA THROUGH THE ENTIRE COMPETITION
Competition	Monday, April 11	9:00-12:00PM Lunch 12:00-12:30PM 12:30-3:30 pm	

COMPETITION FORMAT: (VIRTUAL/ IN SCHOOL)

All secondary competitors will be competing with in their school environment and must arrange in advance with a teacher for a safe competition location, according to their school's Covid-19 safety policies. They will need to prepare their competition space with all of the required tools, equipment, materials, and technology (as listed below) that will be needed to complete the competition. Teachers and competitors will need to work together to ensure the competitor is ready for success on their competition day.

Each competitor must have a teacher/supervisor available throughout the day, in case of incident. (Teacher/Supervisor must be present at the competition orientation.)

Competitors and Teachers should be prepared to receive additional information about the competition projects, livestreams, shipping, etc. prior to the competition. Please ensure you are double checking for emails from Skills, including checking junk mail.

WEBEX LIVESTREAMS:

Competition Registration and Orientation: The competition will begin with a mandatory virtual registration. Competitors will join the assigned link that will be emailed to all registered competitors and registering teachers in advance. This will be the time that competitors are able to check in and ensure sound, cameras, and tech are working appropriately. The registration will be followed by competition orientation. Camera's **MUST** be on and competitors visible on the camera during the orientation.

Competition Livestream: Competitors must remain on camera through their entire competition. Camera's **MUST** be on and competitors visible on the camera, as well as mics working. Competitors must consider their camera angle and lighting in advance of the



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competition. It is the competitor's responsibility to ensure they are prepared for the competition livestream.

SHIPPING PROJECT FOR JUDGING: Competitors will be required to ship their finished projects for judging along with any unused material AND loaned tools. Skills Canada Alberta will provide packaging and shipping labels. Competitors will be required to ship their projects within 24 hours. Additional shipping information will be shared in advance of the competition.

SAFETY:

The health, safety and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

Safety Checklist: It is the responsibility of each competitor and teacher to review the Safety Checklist in advance of the competition to ensure all safety requirements are met prior to the competition. During the official competition orientation, the Safety Checklist will be formally reviewed with competitors. The Safety Checklist is posted as a separate document with the Contest Description.

AWARDS CEREMONY INFORMATION: Please join us for a live virtual awards ceremony on May 6th at 6:30PM.

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 last updated date. Changes will be highlighted in yellow.

CONTEST INTRODUCTION

A machinist uses machine tools to manufacture parts from raw material for a variety of industries. Nearly all consumer goods have been machined or are manufactured from tools or equipment which has been manufactured by a machinist.



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PROJECT DESCRIPTION

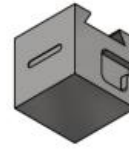
Conventional Engine Lathe

- Safe operating procedures
- Applied Metrology
- Cylindrical & Taper Turning / Grooving / Cylindrical Threading operations
- Three and Four-jaw chuck work



Conventional Vertical Milling Machine

- Safe operating procedures
- Applied Metrology
- Face / Pocket / Form milling
- Drilling / Counter Boring / Reaming operations



SHIPPING PROJECT FOR JUDGING:

Competitors will be required to ship their finished projects for judging along with any unused material AND loaned tools. Skills Canada Alberta will provide packaging and shipping labels. Competitors will be required to ship their projects within 24 hours after the competition. Additional shipping information will be shared in advance of the competition.

EQUIPMENT & MATERIALS

Skills Canada Alberta Provided Tools, Materials, and Equipment

Lathe and Mill Cutting tools (if required)	Project Material	
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Competitor/School Provided Tools, Materials, and Equipment*

CSA approved Safety Glasses	Measurement Tools	Conventional Milling Machine
CSA approved footwear	Hand Tools	Outside Dia turning tool (carbide)
Ear Plugs	Conventional Metal Lathe	Outside Dia threading tool, Imperial and Metric (carbide)
Outside Dia Grooving tool (carbide)	Boring Bar (carbide)	Face mill (carbide)
1/2 end mill (HSS)	Dovetail Cutter (HSS)	0.200 Dia drill bit
90 degree countersink	3/8 rollers	1/8 number stamps
files and deburring tools		

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*Competitors and schools will need to work together to arrange for the tools, equipment, and materials provided by the competitor. If a competitor and/or school is not able to procure a certain item, please contact mikes@skillsalberta.com to inquire if additional arrangements can be made.

SHIPPING INFORMATION

Any tools and equipment provided by Skills Canada Alberta will be shipped to your school prior to the competition date. If you have any questions, please contact: whitneyk@skillsalberta.com.

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	40%	40%
Compliance with appropriate surface finish and deburring	5%	5%
	50%	50%
	Total 100%	

Note:

If a second work piece blank is required, the contestant will lose 20% from the “Compliance with dimensions, tolerances and fits as specified in plans” section.

TIE BREAKING PROCESS

In the event of a tie, surface finish will be used to decide the winner.

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 and open toed shoes/sandals will not be permitted. No loose-fitting clothes or jewelry.

Related Career and Technology Studies COURSES

Descriptions of all modules are located at the following website:

<http://education.alberta.ca/media/2205360/fab.pdf>

- FAB 1130: Principles of Machining
- FAB 2130: Precision Turning 1
- FAB 3130: Precision Turning 2



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- FAB 2140: Precision Milling 1
- FAB 3140: Precision Milling 2

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations
[Regional and Provincial Rules and Regulations](#)

Competitor Registration

Registration for Secondary Skills Canada Alberta Virtual Competition will open online at <https://portal.skillsalberta.com/> on January 26, 2022 at 8:30 AM. There will be no registration fee for competitors to compete. Late cancellation or drop-spots fees may apply.

Lunch

Lunch will NOT be provided.

Virtual Awards Ceremony

The Virtual Awards Ceremony will take place **Friday, May 6th at 6:30PM**. A link will be made available on the website with additional information.

Team Alberta Information

Top eligible medalists will compete virtually in the Skills Canada National Competition (SCNC) May 16-27, 2022. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillsCanada.com/>.

If a competitor is not able to attend the SCNC, competitors MUST notify Katherine Kupchenko katherinek@skillsalberta.com prior to the start of competition. If a gold medalist is not able to attend the SCNC, the next top-ranking individual will be asked to participate.

Ethical Conduct

We recognize that participants will be competing individually in their own unique environments. We expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Alberta.

Letter of Participation

Competitors who participate in the 2022 Provincial Skills Canada Competition are eligible for a Letter of Participation that can be downloaded on the Registration Portal after the competition ends.



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Questions?

Please contact Whitney Koop whitneyk@skillsalberta.com if you have any questions regarding the Contest Description.

COMMITTEE MEMBERS

Darren Roth (Committee Chair)	Calmar Secondary School	
Graham Greenhall	SAIT	
Phillip Townsend	NAIT	
Reece Burdeniuk	Argus Machining Co.Ltd.	

