

Breakout Sessions for: CTF/CTS PD Day 2024 - Skill Quest: Champions of Careers - Conference

Modernizing the Alberta Apprenticeship Education System: Opportunities and Innovations

Facilitator: Keynote: Kathryn Andrews, Justin Cabinet, Paul Hrynew

Date/Time: Jan 30, 2024 (8:30 am to 9:30 am)

Modernizing Alberta's Apprenticeship Education System: Opportunities and Innovations

Alberta's apprenticeship education system is modernizing to ensure it remains relevant and effective in a changing economic landscape. Educators play a key role in guiding students towards diverse post-secondary options, including apprenticeships. Join us to gain insights into these exciting developments.

Attendees can expect to learn about:

Today's apprenticeship system:

- Learn how apprenticeship education has changed in Alberta.
- Explore its modern relevance in today's dynamic job market.
- Discover how competencies learned in the K-12 system can be leveraged in apprenticeship education and the skilled trades.
- Apprenticeship education credentials and post-apprenticeship pathways:
- Learn about our new apprenticeship education credentials.
- Understand how these credentials set students up for education and career advancement.
- Find out how apprenticeship can empower your students to become successful as skilled professionals, entrepreneurs, mentors, and lifelong learners.
- Beyond the Trades
- Learn about expansion of apprenticeship education to occupations outside the designated trades.

How to Leverage AI to Make Your Job Easier

Facilitator: Janice Parsons

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

AI and AI assistants are here to stay. The question is not how to avoid the future but how to leverage the new technology firstly for ourselves so we can save time. And secondly, so that students don't "cheat" but learn appropriate use and boundaries. This will be an opportunity for lively discussion and challenge your preconceived ideas about AI.

Braves Wear Braids

Facilitator: Sheila Williams

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

This session builds foundational knowledge on the cultural teachings, First Nations worldview and importance of hair, and speaks to curriculum course connections.

Certification Opportunities in CTS Sports Medicine

Facilitator: Bernard Ehalt

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

This presentation looks at third party certification opportunities that may be incorporated into a CTS Sports Medicine program.

This presentation will discuss how certification can be used to emphasize, teach, and assess outcomes from the Alberta CTS HRH programs of studies, as well as discuss the logistics and costs of incorporating third party certifications into a Sports Medicine program. This program will look at thirteen third party certifications offer by organizations including SMCA, AATA, NCCP, and CATT and help teachers understand how these training pathways can be incorporated into a Sports Medicine Program and give participant tangible takeaways that they can look to incorporate into their programs.

Fungi in the Classroom

Facilitator: James Stuart

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

Learn simple and more in-depth ways of growing mushrooms in your school as a food source; how your students can experiment with mycelium as a key partner in addressing climate issues and as a material for design and manufacturing in your classroom space.

Self-Guided Tutorials: Classroom-Ready Adobe Illustrator Lessons for Beginners

Facilitator: Caitlin Andrea

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

Increase student confidence and engagement with self-guided Adobe Illustrator lessons.

It would be helpful if participants had a subscription to Adobe Illustrator so they can follow along but not required

Tech Fashion

Facilitator: Jared Henze/ Kayla Whiteman-Kyte

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

We have been experimenting with a collaborative course called Tech Fashion. In our course we are working to unify sewing and technology by exploring a variety of techniques. We've had a variety of successes and are looking forward to showcasing what we've put together.

MyHairDressers (MHD) Complete Resource for CTS Curriculum

Facilitator: Stephen Perron/ David Gilbert

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

In this presentation, attendees will learn about a most innovative and flexible resource for helping teachers teach and students learn in barbering, hairstyling, and cosmetology.

They will be proposed content along with lesson plans for all levels.

An introduction to Mechanics, Fabrication and Electrical through CTF Challenges

Facilitator: Rod Leatherdale / Mitch Bell / Fred Rempé

Date/Time: Jan 30, 2024 (9:45 am to 10:45 am)

In this presentation we will share and explore three CTF challenges in the areas of mechanics (Focus on bike mechanics as

an introduction to principles of mechanics), fabrication with the use of virtual welding units and and introduction to electrical principles through basic automotive wiring.

AI & The Future Landscape: Preparing Students for the Next Technological Frontier

Facilitator: Jonathon Thomas

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

The rapid evolution of artificial intelligence is reshaping the world and the careers within it. Dive into this explorative session where we'll decipher the myriad ways AI impacts global industries, economies, and everyday lives. Equip yourself with knowledge, strategies, and forward-thinking approaches to guide students toward a future where they not only understand AI but also thrive in its presence, ensuring they're ready for the career opportunities and challenges it presents.

The Long and Winding Road

Facilitator: Steve Woodard

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

One of the simplest and most overlooked tools when gluing up complex sub-assemblies is the ancient winding stick. Please join me in creating and learning how to use a set of these fantastic tools.

Cyanotype Fabric Printing

Facilitator: Linda Johnson

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

Explore cyanotype fabric printing by creating a small 4x4 inch sample while you learn about the process and how this textile art can fit into your Fashion program.

Problem Solving Through Computational Thinking

Facilitator: Whitney Horban/ Bernadette Blakey

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

Computational thinking is at the foundation of problem solving and students who can apply these principles are more successful. Explore computational thinking as it relates to creativity, design, and the new Alberta curriculum. This session provides a gentle introduction to decomposition, pattern recognition, abstraction, generalization, and algorithms. Discover how these principles can be applied and taught in your classroom, regardless of subject or grade level. No experience teaching computer science needed!

Short Doughs

Facilitator: The Italian Centre

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

Short Dough - Let's get rolling and not flake out. Have the opportunity to "flour" and "rise up". Let's make some Short Dough and puff up at the results!

Advance Welding Technology

Facilitator: Mike Smith

Date/Time: Jan 30, 2024 (9:45 am to 12:00 pm)

Advance welding is a pathway into the trade of Welder in Alberta. I will cover trade pathways, advance welding structure and offerings and advanced welding dual credit.

Q & A to follow.

The Ingredient Lab

Facilitator: Barbara Inglis, RD, M.Ed.

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

The Ingredient Lab is a new program for grades 7-9 foods teachers based on Career and Technology Foundations (CTF) curriculum. Students are given the challenge: What role do key ingredients play in the sensory qualities of recipes? This session will include taste-testing, conducting sensory evaluations, networking, and reviewing all program components including the Teacher Guide, Student Workbook, cooking videos, and food science videos.

Best Practices to Build an Inclusive, Equitable and Safe CTF/CTS Classroom

Facilitator: Bri Drury/ Serei Jeppesen

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

Partner with Serei and Bri in crafting a toolkit for cultivating an inclusive, equitable, and secure CTF/CTS classroom. Collaboratively, we'll pinpoint biases within the skilled trades and exchange strategies for navigating everyone's invisible backpack. By the session's end, you'll gain access to a toolkit brimming with DEI resources ready for immediate implementation. Let's work together to enhance your classroom environment!

Enterprising Minds - Creativity, Community, and Cash

Facilitator: Sky Hoffos

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

I have developed a CTS class designed around my love for hand crafts, creativity, and selling my products at market! It is called Enterprising Minds, and it focuses on teaching students marketable hand crafts and financial management in efforts to promote small business, and to show students that they can make money on their own. This presentation discusses the successes, trials, and student empowerment that this style of course comes with! I will be sharing my experiences in starting Enterprising Minds, where I would like it to go, and then have an open discussion with other teacher who may be interesting in running this course or incorporate aspects of it into their classrooms. Come hang out, join the discussion, and learn how to make a "magic braid" leather bracelet to take home with you!

The Art of Barbering

Facilitator: Ryan Passmore

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

Barbering for educators will provide the skills to teach advanced barbering and prepare students for a career in the trade. This class will focus on fade work, shaving, and beard techniques both in a theoretical and practical manner.

Square Foot Forests - How to Grow Thousands of Trees and Plant Climate-Resilient Communities

Facilitator: Dustin Bajer

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

Discover how educator Dustin Bajer began cultivating trees in his backyard and how community tree nurseries are cultivating an abundant and climate-resistant city. You'll have the opportunity to take some seeds home, connect with a local tree-growing network, and learn how to grow trees in your classroom, school, or community.

Welding out the Canadian Welding Board S Test: Why it is a valuable addition to your Fabrication class!

Facilitator: Tom Suffern

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

Students can struggle to meet the real world requirements of the jobs they wish to enter into- both the skill level required, as well as the credentials needed. The Canadian Welding Bureau's (CWB) 'S' test is an excellent blend of both, an opportunity for students to practice and test their skills with a high level of rigor and a chance to earn their first real welding certification which may help them enter into industry more easily.

In this session, we will cover what the CWB 'S' test is, how it works in industry, then how it can be taught. Once we have covered the theoretical side, we will begin with the practical side, working to weld out a full 'S' test within the Bev Facey fabrication shop. Participants will get a prepared welding coupon, the correct electrodes, and a booth to weld the test out. If participants are willing, they will then receive the full experience of removing the backing plate. I will operate our radiograph to cut the backing plate off, then those interested participants will grind the remainder off. Once prepared properly, we will bend their welds under industry conditions, and discuss what destructive testing may show us.

Participants must have pre existing welding skill with the SMAW process, wear appropriate PPE (long sleeves, full pants, safety glasses, CSA approved boots), and be comfortable working in a shop environment.

Note: You must select the 1:00pm-3:15pm Welding option as well.

Agriculture and The Environment

Facilitator: Nanita Blomquist and Luree Williamson from Agriculture for Life

Date/Time: Jan 30, 2024 (11:00 am to 12:00 pm)

Take a deep dive into how agriculture and the environment work together to benefit each other and the science behind it. Take a look at the importance of biodiversity, soil, water, air and sustainability and what farmers are doing to help the environment. Learn about how you can help your students understand the important role agriculture plays in protecting the environment with this curriculum related resource, which is free for teachers!

Leading Issues and Ethics Discussions Related to Artificial Intelligence

Facilitator: David Hay

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

The rise of artificial intelligence tools has introduced and exacerbated many issues and ethical considerations. This session will investigate some of these questions, and ways to approach these discussions with students, staff, and others. We'll look at examples such as the bi-weekly after-school conversation series and the in-class dialogues with my high school computers classes.

Trade Officer Consultant

Facilitator: Mitch Bordeleau/ Lester Yearwood

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

Connecting CTS Courses with Trades. This session will provide insights into integrating (CTS) courses with various trades. It will offer information about the latest changes in the Apprenticeship program and strategies for high schools to assist students in initiating their apprenticeships at the high school level

CNC and Laser Roundtable

Facilitator: Graeme Dowdell

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

A chance to talk about CNC routers and lasers cutter/engravers, share projects and resources, talk materials, project workflow and anything else people would like!

Rethinking the Traditional "Home Ec" Classroom

Facilitator: Courtney Albrecht

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

Stuck in the old foods and/or fashions class you took when you were in Jr High? Join to follow one teacher's adventure in stepping into a new role and reinventing her class to meet her students passions and interests. Participate in some hands on activities and gain some ideas/resources you can hopefully implement into your class with ease.

Junior and Senior High Construction Project Sharing Session

Facilitator: Kendall Warawa

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

Come to this session with project plans or pictures of projects that you use in your classes.

Skills Canada Alberta - Inspire. Develop. Elevate.

Facilitator: Hayley Albright

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

At Skills Alberta we promote excellence in trades and technology careers through skills competitions, hands-on programs for students and resources for educators. Are you a CTF teacher looking for ways to inspire your students and for them to develop their skillset? Or maybe you're a CTS teacher with some talented youth looking for ways to demonstrate their excellence. Come join us to learn about our programming that will be sure to empower the workforce of tomorrow and build a future where skills and education unlock endless possibilities.

Climate Change Education: Tools and Tech for your Classroom

Facilitator: Natalie Graveline

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

Explore the exciting world of climate change education with Inside Education! In this interactive session, we will guide you through hands-on activities to use in your classroom that will enhance your climate change, energy, and stewardship lessons and equip your students to be active stewards of Alberta's natural resource landscape! We will highlight the careers, citizen science projects, and activities that we feature in our programming to help engage students in meaningful climate change education.

We will also give you the inside scoop on the upcoming no-cost programming that Inside Education has to offer Edmonton-area teachers to enrich topics related to energy innovations, air quality and stewardship. Our goal is for you to leave this

session inspired and with the tools and resources you need to enrich your lessons and help your students engage with and think critically about these tough topics!

NAIT Business Pathways & Entrepreneurship Resources

Facilitator: John Sutherland

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

In this presentation, we will be doing a hand-on business/entrepreneurship activity with an overview of pathways and opportunities within business programs at NAIT, key differentiators of the JR Shaw School of Business, and entrepreneurship resources, supports, and programming available to students, hope to leave attendees with a better understanding of polytechnic education for business programming, details about academic programming available, and opportunities for students to build community and participate in or explore entrepreneurial ventures while attending NAIT. We will also share opportunities for prospective students to engage with the JR Shaw School of Business to experience the NAIT difference firsthand.

Training your Cosmetology students for Skills with less stress: build your confidence as a trainer

Facilitator: Tanya Jarvis

Date/Time: Jan 30, 2024 (1:00 pm to 2:00 pm)

Are you a teacher who is thinking of beginning training a student to enter the Hairstyling Skills Alberta competition? Or are you a teacher who feels you lack confidence in training your student for successful in competitions? If so, join this session to learn tips and tricks to help you with issues like: student selection, training tips and guidelines that can elevate you and your student's competition journey with more success. This session will be both a lecture/discussion and a hands-on experience.

What you will need to bring:

- Competition or long-haired mannequin
 - Bobby pins -Hairspray
 - Spray shine (aerosol)
 - Basic hair ornamentation
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Infusing Your Curricular Outcomes with the New Science Curriculum, Computational Thinking & Scratch

Facilitator: Trevor Lampen

Date/Time: Jan 30, 2024 (1:00 pm to 3:00 pm)

Are you up all night worrying about how you are going to create amazing instructional activities for the new Science curriculum? Are you feeling the crunch with all the curricular objectives you have to teach? Put that bothersome worry to bed for good by exploring the power of Computational Thinking and Scratch! Come see why the Scratch visual block coding language that is a PERFECT FIT for cross curricular instructional activities infused with Computational Thinking and Computer Science concepts. This session will introduce you to the Scratch programming language as we walk you through simple activities that integrate the Computer Science objectives with cross curricular outcomes from the NEW Alberta Programs of Study. Add a new layer of community building, engagement and fun to your instructional design with Computational Thinking and coding in Scratch!

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Participants must have pre existing welding skill with the SMAW process, wear appropriate PPE (long sleeves, full pants, safety glasses, CSA approved boots), and be comfortable working in a shop environment.

Exploring the New Curriculum Through MakeCode Arcade Games

Facilitator: Whitney Horban /Bernadette Blakey

Date/Time: Jan 30, 2024 (1:00 pm to 3:15 pm)

Strengthen your students' problem-solving skills and engage creatively with the curriculum by creating games in Microsoft MakeCode Arcade! This session will provide you with the foundational knowledge to help your students design their own video games, then bring those games to life through block-based coding. Learn how computational thinking skills such as pattern recognition, algorithm design, and debugging are necessary when coding and how to connect games to curricular concepts in any subject.

Pizza Dough

Facilitator: April Sevigny

Date/Time: Jan 30, 2024 (1:00 pm to 3:15 pm)

You don't just want Pizza, you knead it! -Who wants a slice of the action. The cheesiest of sessions, Let's make some dough, and round out the day!

Approaches to Appreciation, not Appropriation, in Fashion Studies?

Facilitator: Sarah Adomako-Ansah - Shannon Loutitt - Megan Yakimets

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Are you a Fashion teacher hoping to develop your understanding of cultural clothing and wondering how to bring this learning into a classroom context? Some illustrative examples of cultural textiles include Ribbon skirts and Kente cloths, but there are many more! Join us as we discuss ways to respectfully approach teaching and learning about diverse cultures in CTF/CTS settings.

3D Printing - Design and Print...Everything

Facilitator: Graeme Dowdell

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

This session will cover design programs, 3D printers, projects, workflows and how to get your students getting the most out of 3D printing.

Computing Science, Data Science, and AI

Facilitator: David Hay

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Let's talk about how, or if, we are incorporating data science and artificial intelligence in computing science, robotics, and video game classes.

Using Online Resources for Construction and Carpentry Courses

Facilitator: David Gilbert - Stephen Perron

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Utilizing TEACH Construction, we will present to the attendees how to match their construction program curriculum via the online resources and readying it for students in the school's LMS. We will also show how these resources not only save hours of preparation time but how they will assist student's learning outcomes.

The Future Workplace: Generative AI in the Day to Day

Facilitator: Jonathon Thomas

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Step into the evolving landscape of work, where generative AI meets the real world. This practical session delves into the promise and pitfalls of AI as a workplace assistant. Using the work of teachers as the primary example, participants will gain insights into the vast opportunities for efficiency gains while also addressing ethical concerns. By unpacking best workplace practices for teachers, we aim to equip educators with the knowledge and skills they need to help their students prepare for the new world of work.

Success with Seeds

Facilitator: Aron Grykuliak

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Grow your own vegetables, annuals and perennial plants and save \$\$\$\$. You'll learn when and how to seed, how to transplant plus important tips to keep them growing until it's time for planting out.

Business & Innovation

Facilitator: Sean Bradley

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Learn to empower the next generation of leaders by fostering an entrepreneurial mindset. This session covers how high school courses can be built to include core concepts of lean entrepreneurship such as: design thinking, resiliency training, marketing, financial projections, and Business Model Canvas.

Unlocking Creativity in CTF Challenge Design

Facilitator: Paula Miller

Date/Time: Jan 30, 2024 (2:15 pm to 3:15 pm)

Learn how to create a fun and effective CTF challenge to take back to your program. Together we will create and finish a challenge, specific to the option you teach, and be ready to use next semester!