



# Canadian CBRNE & Robotics Summit

## Course Schedule

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### Overview Agenda

Timeframe	Activity
07:30 - 08:15	Registration & Breakfast
08:15 – 09:00	Welcome & Opening Remarks
09:00 – 10:15	Courses (Timeslot 1)
10:15 – 10:45	Break & Refreshments
10:45 – 12:00	Courses (Timeslot 2)
12:00 – 13:30	Lunch & Exhibitor time
13:30 – 14:45	Courses (Timeslot 3)
14:45 – 15:15	Break & Refreshments
15:15 – 16:30	Courses (Timeslot 4)
17:00 – 19:30	<b>Hospitality Event (<i>Tuesday only</i>)</b> Come have a drink, enjoy some hot appetizers, and have some fun!

### ***Where to find classes:***

- There are 4 sessions running in each time slot. Please find the rooms they are being held in on the course agenda in this package.

### ***Visiting Exhibitors:***

Exhibitors are located in the Waterloo Ballroom – Make sure to visit them all!

### ***Meals:***

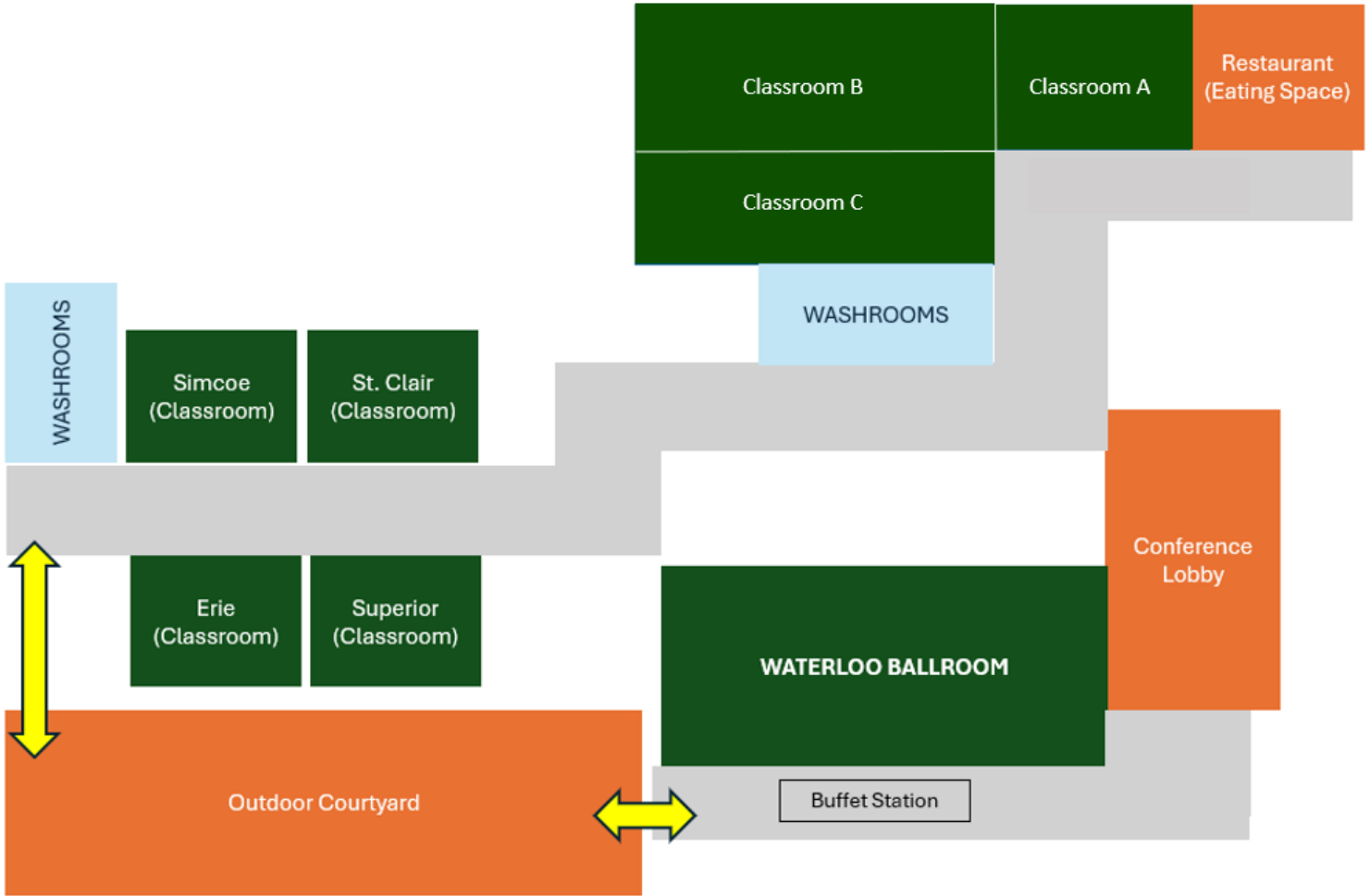
Buffets for all breakfasts, lunches and all breaks will be set up outside of the Waterloo Ballroom. Attendees can find a place to eat in the ballroom, as well as in the restaurant area outside of Ontario Ballroom.



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### Facility Map



Yellow Arrows = exit and entry points through courtyard

Grey = Hallways



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**Tuesday, April 21st, 2026**

**Timeslot 1: 09:00 – 10:15**

<b>C l a s s r o o m</b>	<b>O N T A R I O  A</b>	<p><b>Exposure Management Basics for Designated Officers</b>  <b>Instructor: Tracy Schwandt</b></p> <p>This course applies the basic knowledge and application skills one needs when in a Designated Officer role. Guidance and education is provided on exposure management for various types of exposures including spit, bites, blood and needlestick injuries. The goal of this course is to ensure Designated Officers feel more comfortable in this role and their decision-making abilities.</p>
	<b>O N T A R I O  B</b>	<p><b>Why Does Everyone Hate Radiation?</b>  <b>Instructor: Joey Pordash</b></p> <p>When you think of radioactive emergencies, does your mind immediately think of Three Mile Island, Chernobyl, or Atomic Train? Truth is a majority of emergencies involving radioactive substances involve construction vehicles or normal non placarded vehicles carrying low level packages. Someone smuggling a Soviet warhead onto a runaway train is a scenario only made for the movies. This class will go over radiation basics, transportation case studies, metering techniques, and ways you can make radiation less boring for your team, and keep you prepared to mitigate any incident, without evacuating 50,000 people.</p>
	<b>O N T A R I O  C</b>	<p><b>Beyond The Hot Zone: Building Mental Fortitude &amp; Leadership Fundamentals for Hazmat Response</b>  <b>Instructor: Adam McFadden</b></p> <p>Hazardous materials incidents and Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) responses place immense physical and psychological demands on firefighters and Hazmat technicians. This course will discuss the critical intersection of operational leadership, mental health awareness, and human behavior during high-stress Hazmat events. Through interactive discussions, case studies, and practical exercises, attendees will gain insights into fostering a resilient mindset, leading teams with confidence, and prioritizing health and wellness in the demanding field of Hazmat &amp; CBRNE response. This course is essential for those seeking to enhance their leadership capabilities and support the well-being of their teams in high-risk operations.</p>
	<b>S U P E R I O R</b>	<p><b>An Ounce of (Hazmat) Prevention</b>  <b>Instructor: Tiffany Koontz</b></p> <p>Assessing a hazmat situation using critical thinking and some common sense. Often, we are told that a hazmat situation resulted in an “unknown” environment, but there are many clues present to point you in the right direction. “An ounce of prevention is worth a pound of cure” (axiom coined by Benjamin Franklin), can be applied to hazmat situations, where a bit of research and logic on the frontend, can save time and trouble later on. In this session, we will go back to some basics of hazardous materials properties and behaviors, in order to better understand the conditions, before mitigation or remediation efforts should begin.</p>



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**Tuesday, April 21st, 2026**

**Timeslot 2: 10:45 – 12:00**

<b>C I A S S R O O M</b>	<b>O N T A R I O A</b>	<p><b>Decon Evolved</b>  <b>Instructor: Brent Burnside</b></p> <p>This course explores the critical evolution of decontamination procedures, transitioning from traditional, resource-intensive water-based methods to modern, rapid-response dry absorbent techniques designed for efficiency and minimal waste. This curriculum is designed for professionals in emergency management and hazardous material handling who require efficient, low-waste solutions for environmental and personal safety procedures.</p>
	<b>O N T A R I O B</b>	<p><b>From Paper Mess to Digital Clarity: The Digital Transformation in TDG Shipping Documents</b>  <b>Instructor: Amit Bhargava</b></p> <p>Transportation of Dangerous Goods Regulations (TDGR) were designed with public safety in mind. One of the key essentials of TDGR is that TDG Shipping Documents must travel with dangerous goods shipments. The sheer number of dangerous goods transported, often make DG/Hazmat Transportation compliance seem like an onerous and time-consuming task. The current requirements of having these Shipping Documents in paper format seems like a paperwork exercise, but there is a better way - digital! When first responders receive complete and accurate information that they can read, they are much better prepared to save lives and minimize any impacts. Regulations require paper shipping documents to accompany dangerous goods during their transport, however, when an emergency event occurs, Emergency Responders cannot always access those paper documents from the Truck. EnviroApps digital documents help to improve safety, ensure compliance and save costs.</p>
	<b>O N T A R I O C</b>	<p><b>Runways, Refineries &amp; Risk: High-Stakes Hazmat Fire Response for Airports and Industry</b>  <b>Instructors: Adam McFadden and Greg Scott</b></p> <p>Do you have a local airport in your response area? Will you respond to industrial facilities including oil and gas, chemical manufacturing or production manufacturing? In this conference session, participants will gain comprehensive knowledge to handle flammable and combustible liquid fires in diverse, high-risk specialty environments. Through a detailed overview of flammable liquid firefighting tactics, incident command strategies, and hazard control measures, attendees will explore the unique challenges of managing fires at fixed facilities, rural and urban airport facilities that may be in your response area, and commercial industrial plants. Participants will learn to deploy firefighting foams effectively, manage spill response, and mitigate hazards with various aircraft, combustible storage, pressurized vessels and chemical containment systems including post-event decontamination and exposure reporting.</p>
	<b>S U P E R I O R</b>	<p><b>Clandestine Drug Labs and Marijuana Grow Operations Hazard Awareness</b>  <b>Instructor: Dale Moore</b></p> <p>This course is designed to provide the attendees with knowledge on the following to keep them safe: How to recognize the signs of a possible clandestine drug lab or grow op, the inherent hazards/dangers to First Responders, what to do and what not to do when encountering an illicit clandestine drug lab, and possible booby traps that can be encountered.</p>



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**Tuesday, April 21st, 2026**

**Timeslot 3: 13:30 –**

**14:45**

<b>C I A S S R O O M</b>	<b>O N T A R I O</b>	<p><b>Introduction to CANUTEC</b>  <b>Instructor: Christine Frenette</b></p> <p>The Introduction to CANUTEC will provide an overview of who is CANUTEC, services provided and how we can assist in any emergency involving Dangerous Goods.</p>
	<b>A</b>	<p><b>Battery Brining: The LFD Holiday Method for Li-Ion Mitigation</b>  <b>Instructor: AJ Braatz</b></p> <p>Is your department still trying to decide how to deal with Li-Ion batteries post incident? Have you purchased expensive third-party products with complex procedures, only to find it difficult to actually put it into practice? In this course, we will discuss the London Fire Department's solution to the complex challenges of small-scale Lithium-Ion batteries. AJ will share the research and data that led to adopting this process that uses inexpensive, readily available products that can be utilized by departments large and small to mitigate DDR batteries post incident. This is not a sales pitch. Nor is it a perfect solution that fits every potential incident. It is intended to be a sharing of information, SOGs, and ideas to hopefully provide a more practical solution to this problem. All are welcome to attend and bring their knowledge and insights to the discussion as well.</p>
	<b>B</b>	<p><b>Seconds from Chaos: Hazmat Technician Strategies for Bomb Threats, Suspicious Package and Explosive Device Calls</b>  <b>Instructor: Adam McFadden</b></p> <p>When every second counts, hazmat technicians must be prepared to respond to bomb threats and suspicious packages that may involve CBRNE agents, mass casualties, or secondary devices. This session explores critical strategies and field-proven tactics for fire-based hazardous materials teams operating in coordination with local firefighters, law enforcement, EMS, and bomb squads.</p> <p>Attendees will learn how to identify potential explosive threats, assess scene hazards, utilize hazardous material detection equipment, implement safe isolation zones and on-site risk assessments, and support unified command structures. Real-world case studies, joint task force practices, and technical rescue integration will be discussed, focusing on firefighter safety, interagency operations, and public protection in high-threat environments.</p>
	<b>C</b>	<p><b>Radiological &amp; Nuclear Threat Response: From Fundamentals to Real-World WMD Operations</b>  <b>Instructor: Bryan Sommers</b></p> <p>Radiological and nuclear incidents present complex, high-risk challenges for today's CBRNE and robotics responders. This session provides a concise, operationally focused overview of radiation fundamentals, exposure vs. contamination, health effects, and ALARA principles, followed by an examination of real-world radiological and nuclear WMD threats, including Radiation Exposure Devices (REDs) and Radiological Dispersal Devices (RDDs). Participants will also take part in a hands-on Personal Radiation Device (PRD) Source Safari, applying detection concepts in a practical environment to reinforce recognition, situational awareness, and decision-making. This session is designed to strengthen responder confidence, improve threat recognition, and enhance readiness for radiological and nuclear incidents across operational environments.</p>



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**Tuesday, April 21st, 2026**  
**16:30**

**Timeslot 4: 15:15 –**

<b>C l a s s r o o m</b>	<b>O N T A R I O</b>	<p><b>When Hazmat &amp; CBRNE Meet Hospitals</b> <b>Instructor: Greg Scott</b></p> <p>This course prepares hospital staff, first receivers, paramedics, fire services, and security personnel to safely manage hazardous materials and CBRNE incidents presenting at healthcare facilities. It focuses on: Unannounced patient arrivals (walk-ins), contamination control &amp; decontamination, responder safety, integration with fire/EMS/ and Hazmat teams from unknown products and from large area venues.</p>
	<b>O N T A R I O</b>	<p><b>Responding to Emergencies Involving Radiation and Radioactive Materials</b> <b>Instructor: Chris Malcolmson</b></p> <p>This session will introduce different types of radiological emergencies and discuss the general principles for hazard assessment and response. Challenges in responding to radiological emergencies will be identified along with tools for mitigating the impact of these obstacles. As part of these strategies, insight into how community partnerships can strengthen response capabilities and overcome these challenges will be proposed. The relationships developed between the City of Hamilton First Response Teams and the McMaster University Health Physics Department Radiation Safety Specialists will be presented as a model for bolstering overall response to emergencies involving nuclear material, radiation, contamination, or other radiological emergencies.</p>
	<b>O N T A R I O</b>	<p><b>That's a Hot Battery: Tackling Lithium-Ion Battery Fires Head On from E-Bikes to Mobile Devices</b> <b>Instructor: Adam McFadden</b></p> <p>This session provides a comprehensive exploration of the unique challenges posed by lithium-ion battery fires, from understanding their chemical hazards to implementing advanced firefighting and containment strategies. Participants will delve into the science of thermal runaway, toxic gas release, and battery fire behaviors, equipping them with cutting-edge HAZMAT chemistry knowledge. Practical tactics for suppression, including water and the demonstration of specialized devices like undercarriage nozzles and fire blankets, will be discussed alongside strategies for containing fires in vehicles, protecting exposures, in residential areas, high-rise buildings and underground parking structures.</p>



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S U P E R I O R	<p><b>How to Start a Drone Program</b>  <b>Instructor: Steve Clark</b></p> <p>There is a fundamental difference between purchasing a drone and building a drone program. There is a clear distinction between acquiring equipment and developing a sustainable, operationally integrated public safety RPAS program. This course focuses on what it actually takes to move beyond hardware and establish a structured capability that supports emergency operations across disciplines. Participants will examine the foundational components of a successful drone program, including governance, policy development, pilot selection and training, safety management, regulatory compliance, risk assessment, and integration within the Incident Command System. Emphasis is placed on building a 24/7 operational model that aligns with command structure, operational accountability, and responder safety. Drawing from real world fire service implementation, this course provides practical lessons learned, common pitfalls, and strategic considerations for agencies seeking to launch or formalize their unmanned aircraft capability. Attendees will leave with a clear framework and actionable steps to develop a compliant, mission driven drone program that enhances situational awareness and supports modern emergency operations.</p>
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**Wednesday, April 22nd, 2026**  
**10:15**

**Timeslot 1: 09:00 –**

C l a s s r o o m	O N T A R I O A	<p><b>Designated Officers Unite</b>  <b>Instructor: Tracy Schwandt</b></p> <p>After a great session at the 2025 summit, this course offering is back to provide an opportunity for Designated Officers (and those interested in the role) to network with one another and discuss current challenges and questions one may have.</p>
	O N T A R I O B	<p><b>Let's talk about PIDs</b>  <b>Instructor: Mathieu Prevost</b></p> <p>So are you reading 102 ppm on your PID? Should you be worried? The session will cover how PIDs function, their limitations and applications. We will also discuss the different types of PIDs, their advantages and how they can be deployed during operations.</p>



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O N T A R I O  C  S U P E R I O R	<p><b>CQI for Hazmat Teams: Turning Near-Misses into System Fixes</b>  <b>Instructor: Patrick D. Horan Jr</b></p> <p>Many teams do AARs, but few produce trackable improvements. This session gives a lightweight CQI model tailored to Hazmat: categorize failures, select interventions, assign owners, and measure whether change worked.</p>
	<p><b>The Tactical Gap Mission Specific Response</b>  <b>Instructor: Greg Scott</b></p> <p>Audience: Volunteer/combo departments, rural/remote services, small municipal teams, ARFF mutual aid partners.          Goal: Provide a defensible Interpret NFPA 470 'mission-specific' intent for small-crew realities while maintaining responder safety. When Hazmat teams are delayed or not coming.          Apply a simplified size-up and risk-based response matrix for limited staffing and equipment.          Execute line-of-sight (LOS) rescue and remote reconnaissance with minimal resources.          Select PPE and establish zones proportionally to hazard and crew capacity.          Integrate mutual aid, industry partners, and delayed HazMat teams into a single operational picture.</p>

**Wednesday, April 22nd, 2026**  
**12:00**

**Timeslot 2: 10:45 –**

C l a s s r o o m	<p><b>Every Hazmat Call Matters: Guarding Against Complacency in CBRNE Response</b>  <b>Instructor: Ralph Suppa</b></p> <p>Hazardous materials incidents vary widely in scale and complexity, from small chemical releases to full-scale CBRNE events. Yet a dangerous trend persists, complacency. Too often, responders are pressured (sometimes even by command officers) to "downgrade" a call, shortcut established protocols or approach a situation with reduced urgency or because they feel overwhelmed and scared. These decisions may seem efficient in the moment but can result in significant responder exposures, public safety risks, and long-term organizational liability. This presentation will challenge attendees to treat every hazmat call, no matter how routine it may appear as a potential high-consequence event. Drawing on over two decades of operational experience and training across premier facilities including the U.S. Army Dugway Proving Ground, Aberdeen and Edgewood Proving Ground, FEMA's COBRA facility, and the National Fire Academy, I will present real-world case studies where following (or failing to follow) established protocols had decisive outcomes.</p>
	<p style="text-align: center;">A</p>



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O N T A R I O  B  O N T A R I O  C  S U P E R I O R	<p><b>Drone as a First Responder: From Concept to Capability</b>  <b>Instructor: Mykal Hamilton</b></p> <p>This presentation provides a practical, experience-driven overview of Drone as a First Responder (DFR) for public safety agencies. It explores what DFR is, why it delivers operational value, and how it has evolved within Ontario's regulatory and public safety landscape. Attendees will learn how DFR enhances responder safety, improves situational awareness through live actionable data, strengthens team coordination, and supports better decision-making before and during incidents. The session also examines real-world DFR use cases, infrastructure and airspace considerations, geographic and hardware range limitations, and key factors agencies must address when developing or scaling a sustainable DFR program.</p>
	<p><b>Overview of Class 7 Radioactive Materials Shipments in Canada</b>  <b>Instructor: Ulf Stahmer</b></p> <p>Thousands of Class 7 radioactive shipments are made in Canada each day. This course provides an overview of the types of radioactive shipments being made, the types of packages used, and the basic principles associated with emergency response. An introduction to radiation and the hazards associated with response to Class 7 incidents will also be covered.</p>
	<p><b>The Problem with Pentane</b>  <b>Instructor: Steve Clark</b></p> <p>This risk is increasingly relevant in Ontario and other regions with legacy and abandoned gas wells, where methane and hydrogen sulfide can migrate unpredictably through soil and groundwater, creating explosive and toxic atmospheres in unexpected locations. Real world incidents have shown that monitors may appear to function properly while failing to identify these hazards, placing crews at significant risk. Through practical scenarios and operational insights, this session breaks down how calibration choices, sensor degradation, and gas characteristics impact detection reliability. Participants will gain a clear understanding of why bump tested monitors can still fail, and how to adjust monitoring practices to ensure accurate readings and safer decision making on scene.</p>

**Wednesday, April 22nd, 2026**

**Timeslot 3: 13:30 –**

**14:45**

C I a s s r o  A	<p><b>Exposure Protocol, How Workplace Exposure Management Tools can assist Designated Officers</b>  <b>Instructor: Tracy Schwandt</b></p> <p>Participants will review the importance of having a clear exposure management process for Designated Officers to follow in cases of occupational exposure to blood and bodily fluids. The Exposure Protocol from Peel Regional Police will be presented, with dedicated time for questions and discussion.</p>
	<p><b>Ontario</b></p>



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<b>o m</b>	<b>O N T A R I O B</b>	<p><b>Dual-Spectrum in the Hot Zone: Operational Lessons from Next-Generation Handheld Chemical Identification in HazMat Response</b>  <b>Instructor: Kilpatrick Woodward</b></p> <p>As the threat landscape facing HazMat and CBRNE responders continues to evolve, the analytical tools we carry into the hot zone must keep pace. This session examines the real-world deployment of next-generation handheld chemical analyzers integrating Raman and Fourier Transform Infrared (FTIR) dual-spectroscopy within a single field-ready platform. Drawing on direct field experience and operational case studies, attendees will follow dual-spectrum instrumentation through authentic response scenarios — white powder calls, clandestine lab entries, unknown liquid encounters, and explosive precursor identification. The session honestly addresses real-world integration challenges including training, degraded sample performance, and positioning these tools within a broader multi-instrument detection strategy. Military CBRNE personnel will find particular relevance in discussions covering Chemical Warfare Agents (CWAs), Toxic Industrial Materials (TIMs), and pharmaceutical-based agent workflows. Attendees will leave with hands-on device experience, a practitioner’s-eye view of where this technology excels, where it requires support, and how agencies can structure procurement, training, and tactical integration for maximum operational impact.</p>
	<b>O N T A R I O C</b>	<p><b>Tank Car Anatomy – Low vs High Pressure</b>  <b>Instructor: Michael Magee</b></p> <p>This course will help recognize the difference between a low pressure and high-pressure tank car and review of the anatomy of a tank car. We will also go over ways to mitigate risk with an incident involving rail cars.</p>
	<b>S U P E R I O R</b>	<p><b>CANUTEC: What you may not know</b>  <b>Instructor: Christine Frenette</b></p> <p>This session takes you behind the scenes at CANUTEC to explore the advanced resources we use every day to support emergency personnel across Canada. Participants will gain insight into CANUTEC’s evolving technical toolbox, including real time plume modeling used to predict hazardous releases; the role of Emergency Response Assistance Plans (ERAPs) in guiding specialized response actions. We will also demonstrate how tools like AskRail enhance situational awareness during rail incidents and highlight several lesser-known capabilities that strengthen Canada’s national preparedness and response. Whether you are new to CANUTEC or have relied on our advisors for years, this presentation will reveal capabilities, programs, and behind the scenes processes that may surprise you—and will ultimately help you support your communities with even greater confidence.</p>

**Wednesday, April 22nd, 2026**

**Timeslot 4: 15:15 - 16:30**



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C l a s s r o o m	O N T A R I O	<p><b>The monitor whisperer, from the north!</b>  <b>Instructor: Mathieu Prevost</b></p> <p>In this session, the participants will learn about the different types of air monitoring devices, and how they function. Through demonstrations, we will establish their applications, limitations and how to deploy them together to circumvent these limitations and integrate them in our responses.</p>
	A	<p><b>The Mental Health of your Team? How are we doing?</b>  <b>Instructor: Lyle Renaud</b></p> <p>We will explore mental health and how it applies to your CBRNE team and how you are managing acute and chronic symptoms. We will also explore components of Disaster Psychology, and what a Peer Support team can offer during CBRNE events.</p>
	B	<p><b>Homemade Explosives</b>  <b>Instructor: Brent Burnside</b></p> <p>This presentation delivers a non-instructional, responder-focused overview of homemade explosive threats, designed to improve recognition, safety, and interagency coordination. The session addresses the types of chemical categories commonly encountered, the hazards they present, and how emergency services can operate safely and effectively at suspected or confirmed explosive scenes.</p>
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	S U P E R I O R	