

CNIM update

August 2024

YukonU.ca/CNIM

Continuing Studies
Centre for Northern
Innovation in Mining





At a glance

- *Heavy Equipment Technician*
- *Heavy Equipment Operator Simulator Training*
- *Class 1, 3 and Air Brakes*
- *Earth Sciences*
- *Environmental Monitoring Certificate*
- *Applied research: Northern Mine Remediation*



CNIM update - August 2024

Heavy Equipment Technician

The Level 3 apprentice intake concluded on May 16 with all 11 apprentices completing the intake requirements and heading off to challenge the TG apprentice exam. Currently, there are 12 pre-apprentice students and 3 Level 1 apprentice registered for fall programming.

Heavy Equipment Operator Simulator Training Program

Our CNIM coordinator, Chantelle Butler is currently working on HEO training contracts for the fall semester. The City of Whitehorse and Kwanlin Dun First Nation will be gearing up for HEO simulator training in September and October. These contracts are specialized training plans for our industry partners to engage their employees in training that is based on their specific needs.

Class 3, Class 1 and Air Brakes

The CNIM building continued to operate Class 3, Class 1 and Air Brakes throughout the summer. June through August saw a steady number of students obtaining their Air Brakes Endorsements, and passing their Class 3 written exams.

Air Brakes: 16 students obtained their Air Brakes Endorsement(s)

Class 3 Theory: 13 students passed their written Class 3 exams

Class 3 Sim: 7 students completed their simulator hours

Class 3 In-Cab: 10 students currently practicing in-cab for September/October road tests.

CNIM update - August 2024

CNIM's commercial driving instructor, Trevor Sinclair has put in many hours this summer and will have 2 students completing their Class 1 training by end of August/September. These 2 students have completed and passed their written exams, simulator training, and are now finishing up their in-cab hours in preparation for their road tests with the Whitehorse Motor Vehicles Branch.

CNIM staff has applied for a new funding opportunity with CANNOR, to assist in continuing the development of the commercial driving program. The funding is set to begin in September of 2024 and will showcase an additional simulator, as well as further programming support. The new simulator will be based in Whitehorse, and will allow for new driver training opportunities such as emergency vehicles, and school bus simulation training (not currently being offered). CNIM will continue to focus on commercial driver training delivery, and the current simulator will be mobilized at the Dawson City campus for driver training this fall and winter.

Our fleet was added to with the generous donation of a gravel truck from Castlerock Enterprises, and the overhaul completion of the unit received from Yukon Government. Both units are scheduled for use in the driver training program this fall.

Earth Sciences students have taken a summer hiatus from instruction, with many working in geoscience-related positions including roles with Hecla, Archer Cathro, YG Water Resources, YukonU Permafrost & Geoscience, and the Courtenay Paleontology Center, amongst others. Second-year students returned in late August for a 1.5-week local field school, which included a Faro Mine Complex tour supported by staff from CIRNAC.

Instructors are anticipating they will 15 Earth Sciences students enrolled in Fall 2024; numbers in individual courses will be supplemented by elective students from RRMT, ENCS, and Northern Science programs. Program faculty were actively involved in research over the summer months, including Virtual Geology fieldwork on the St. Elias Icefields in Kluane National Park, and more local fieldwork and public engagement with the Assessing Groundwater in the Whitehorse Area (AGWA) project.



Earth Sciences and Renewable Resource Management (RRMT) students at the Faro Pit, Faro Mine Complex.



Groundwater sampling training for team members in the Assessing Groundwater in the Whitehorse Area (AGWA) project.



Earth Sciences faculty member Mary Samolczyk discussing nunataks in the St. Elias Icefields (Virtual Geology Project).

Environmental Monitoring Certificate

Scott Keeseey, instructor of Environmental Monitoring at CNIM, has been working throughout the summer to deliver courses to students. Due to the unforeseen circumstances of the Victoria Gold's mine site closure, the students were unable to complete a site tour this summer. However, students continued on with course work in the field, and will be gearing up for a 2 day site tour at Minto Mine in September. The group will carry on to attend BC's Mine Reclamation Symposium in Vancouver, shortly afterward.

Summer courses for the current cohort were delivered in the following months at these locations:

- June – ENVM 097 Contaminated Sites (Faro Mine Site)
- July - ENVM 096 Terrestrial Monitoring (Whitehorse)
- August – ENVM 094 Aquatic Monitoring II (Dalton Trail Lodge/Klukshu)

The Aquatic Monitoring II course progressed well; with 5 engaged students getting the chance to monitor the sockeye salmon runs in CAFN territory in the Klukshu River. The students and instructors had the opportunity to meet with Departments of Fisheries and Oceans staff, Parks Canada staff, and CAFN reps, to gain further knowledge in the course.



ENVM group completing their field course in Haines Junction in August

- Research activities in the Northern Mine Remediation (NMR) program, led by Industrial Research Chair Dr. Guillaume Nielsen, continue.
- The NMR team made a visit to Minto mine to conduct fieldwork in July 2024. Thanks to Yukon government for supporting this research and the logistics needed to accomplish it.
- This visit included removal of equipment belonging to YukonU and research partner University of Saskatchewan. The research site will be preserved for potential future experiments and study.
- Taylor Belansky, a student who completed research for a Master's degree with the NMR Team, successfully defended her thesis and graduated from Institut nationale de la recherche scientifique in Quebec. Her thesis will be published and her results will be shared on NMR's webpage.



Selkirk FN and FN of NND students
visiting Victoria Gold mine site



Research site at Minto Mine - Master's degree project



General Updates

- The research team is working on a number of publications to share their research results. These include:
- A paper called "Metal(loid) removal response to the seasonal freeze-thaw cycle in semi-passive pilot-scale bioreactors", which has been accepted in the journal Mine Water and the Environment.
- A draft paper called "Semi-passive treatment columns for multi-elemental removal from synthetic mine-impacted groundwater under cold conditions" will be submitted for review in the coming weeks.
- A planned paper called "Semi-passive treatment of nitrate in mine-impacted water in cold climates" will be written in Fall 2024.
- YukonU continues to work towards the next phase of northern mine remediation research. During this transition year, Research Chair Guillaume Nieslen will work at reduced capacity and will focus on knowledge mobilization and future planning. Activities to support continued research under this program include:
- The submission of an NSERC Applied Research and Development grant, with industry partners Casino, Newmont, Snowline and Hecla.
- Discussions with Yukon Government to explore options to fund continued research.
- Alignment of research and academic programming at YukonU, opening opportunities for more collaborative research and teaching to support position sustainability, and explorations of YukonU contributions towards program sustainability.

General Updates continued...

- Continued exploration of options for funding to support on-going research activities.
- CNIM fleet received the generous donation of a gravel truck from Castlerock Enterprises, and the overhaul completion of the truck received from YG. Both vehicles are scheduled for use in the driver training program.
- Skills Yukon summer camp brought students through the University for 'Try a Trade' day in July. Young students ages 11 - 15 learned directly from our CNIM instructors; they focused on cargo securement skills, how an air brakes system works and had the opportunity to try the driving simulator.
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Youth participants and CNIM staff working on their skills for 'Try A Trade' day



Meagan Christie
Instructor
Carpentry



Dr. Guillaume Nielsen
Industrial Research Chair
Northern Mine Remediation
YukonU Research Centre



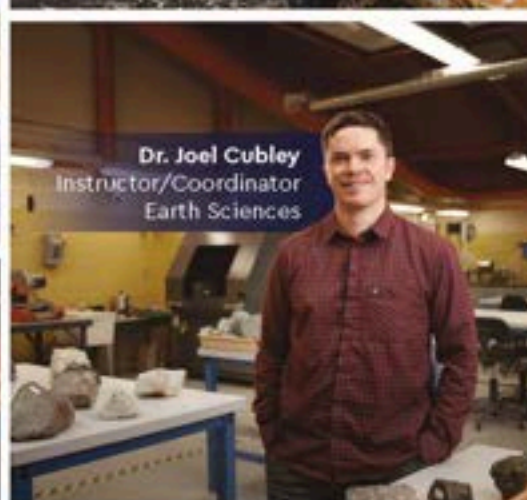
Elizabeth Moses
Elder on Campus



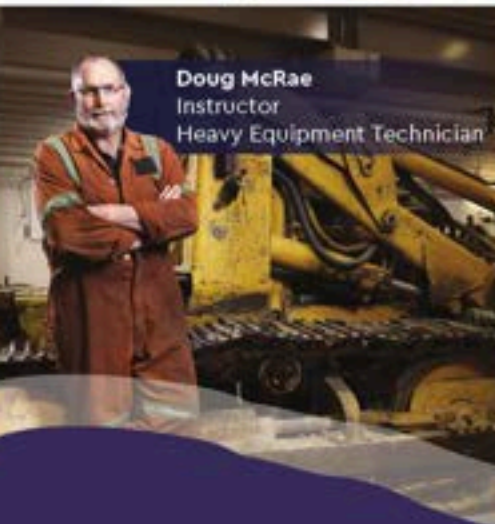
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and grow with us.

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