



MONTANA TECH WEEKLY UPDATE

September 3, 2024

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UPCOMING CAMPUS EVENTS

9/4: Club Rush (10:00 am-2:00 pm, Courtyard)

9/6: Public Lecture by R. Mark Bricka (3:00 pm, Copper Lounge)

9/9: Tony Banovich Invitational Cross Country Meet (Highland View Golf Course)

9/12-9/13: DayOne

9/10: New Employee Reception (3:30-5:00 pm, Chancellor's Residence)

9/13: Volleyball vs Rocky Mountain College (7:00 pm, HPER)

9/18: Career Fair Social (4:30 pm, SUB)

9/19: Career Fair (8:00 am, HPER)



CONSTRUCTION UPDATE

As you noticed this morning, paving on Park Street has begun. We are excited to see this progress and look forward to its completion. We also look forward to Marcus Daly returning to campus soon.

DAYONE

Montana Technological University's 8th annual giving event DayOne will take place on Thursday, September 12th and Friday, September 13th. DayOne is a two day online giving event to raise funds for our students, departments, programs, and initiatives at Montana Tech. DayOne 2024 kicks off at 6:00 am MST on

Thursday, September 12th and will run through 11:59 pm MST on Friday, September 13th. Find out more about DayOne 2024, and to sign up to be a DayOne Ambassador visit, <https://dayone.mtech.edu>.

PUBLIC LECTURE SERIES: R. MARK BRICKA

Montana Tech's Public Lecture Series will host R. Mark Bricka, PhD, PE, from the Dave C. Swalm School of Chemical Engineering at Mississippi State University on **Friday, September 6, 2024** at 3:00 pm. His presentation is titled, Evaluation of Remediation Technologies. The presentation will take place in the Copper Lounge or via Microsoft Teams, Meeting ID: 299 288 159 858; Passcode: NJ9xZX.

Dr. Bricka has been a Professor in the Dave Swalm School of Chemical Engineering at Mississippi State University since 2001. Prior to that, he was employed as a Research Chemical Engineer and later as a Research Environmental Engineer with the US Army Corps of Engineers, US Army Engineer Waterways Experiment Station (WES), Environmental Laboratory (EL), Environmental Engineering Division (EED). His current area of research focuses on alternative energy sources and the physical and chemical treatment of inorganic contaminated media. Dr. Bricka's current research program includes a wide scope of topics ranging from the development of gasification and pyrolysis to innovative techniques for the treatment of soil at small arms.

The primary goal of the United States Military is to train and equip troops to maintain military readiness to defend the US and its interests. Small arms range (SAR) training represents a major element in keeping the military ready to accomplish this.

Projectiles utilized as part of SAR training have accumulated in the soil at the SARs as a result of many years of use. These projectiles are composed of toxic metals, such as lead and copper. The projectiles, with weathering, can transform from a relatively insoluble elemental to an highly mobile ionized complex. This transformation increases the mobility of the metal which may allow it to migrate to surface and ground water sources. Due to the metal's toxicity, the SAR may pose a threat to humans and the environment.

Studies show that treating the soil with phosphate-based binders may react with the metals, which results in lowering the solubility of the lead and other metals. The phosphate based-binders react with the metal ions, such as lead, to form insoluble metal phosphate complexes called pyromorphites as shown in equation 1: $10M^{2+} + 6H_2PO_4^- + 2OH^- \rightarrow \underline{M_{10}(PO_4)_6(OH)_2} + 12H^+$ Eq (1).

Research was conducted to determine the relative size of the SAR issues as well as investigating technologies that can be used to prevent or slow the migration of metals from SARs. This presentation will discuss the widespread contamination

potential of military SARs and briefly present introduce separation techniques, phosphate addition to SARs to slow metal migration and a phytoremediation study and its impacts on lead contaminated soil.

The lecture is presented by the Montana Tech Graduate Student Advisory Board and the Office of Research.

NEW EMPLOYEE RECEPTION

The new employee reception is for all employees hired on or after June 1, 2024, and their managers. The reception will be held at the Chancellor's Residence on **September 10** from 3:30 to 5:00 pm.

CAREER FAIR WELCOME SOCIAL

Join Career Services and our employers who help give our students their great outcomes for hors d'oeuvres, drinks, and conversation. This year's social will take place on **September 18** at 4:30 pm in the SUB Lobby and Copper Lounge to kick off the Career Fair.

REGISTER FOR THE CAREER FAIR

The 24th Annual Career Fair is **September 19** starting at 8:00 am. Students should register today and check out all the employers who are coming to campus like ProFrac, Enterprise Holdings, Freeport-McMoRan, Nomad GCS, and Nucor. Go to DiggerRecruiting-DR 2.0 to sign up for the event and all the other employer events on campus. Be sure to upload resumes early to ensure timely feedback in time for the Career Fair.

CAREER FAIR VOLUNTEERS NEEDED

Career Services is looking for volunteers for the 24th Annual Career Fair on **September 19 and 20** in the HPER. Please check out the Career Fair Volunteer Sign Up Sheet to pick a slot that would work for you. We need most of our help during setup on the 18, Career Fair opening 7:00 am-10:00 am on the 19th, and after 3:00 pm on the 19th and 20th for taking down the event. The Career Services team appreciates your help.

UPCOMING CAREER SERVICES EMPLOYER EVENTS

Career Services is working with employers to help find students jobs. We have arranged for several to come to campus. Go to DiggerRecruiting-DR 2.0 and register for any of the following upcoming events.

- **9/4:** St. Luke's Virtual Presentation (1:00 pm, [Online](#))
Recommended Majors: Nursing, Radiologic Technology
- **9/5:** Reiloy USA Pizza Party, (11:00 am, ELC 225)
Recommended Majors: Metallurgical Engineering

- **9/6:** Jackson Contractor Info Session, coffee and snacks provided, (10:00 am, Big Butte/Highlands Room).
Recommended Majors: Civil Engineering, Civil Engineering Technology, Construction Management, Construction Technology-Carpentry, Occupational Safety and Health
- **9/10:** St. Luke's Virtual Presentation, 1:00 pm, [Online](#)
Recommended Majors: Nursing, Radiologic Technology
- **9/10:** John Deere Info Session, pizza provided (12:00 pm, Kelly/Steward)
Recommended Majors: Civil Engineering, Civil Engineering Technology, Electrical Engineering, Engineering, Mechanical Engineering, Welding Technology
- **9/10:** HDR Pizza Info Session (4:00 pm, Mountain Con Room)
Recommended Majors: All Engineering,
- **9/17:** NUCOR presents Confidently Approaching Your Employer Workshop, catering provided (11:00 am, Copper Lounge) Recommended Majors: All
- **9/18:** NUCOR Info Session, catering provided (11:00 am, Copper Lounge)
Recommended Majors: All
- **9/18:** Warrior Met Coal Info Session, refreshments provided (5:30 pm, Mountain Con Room)
Recommended Majors: All
- **9/18:** U.S. Patent & Trademark Office Info Session 11:00 am, SSC Journey Room)
Recommended Majors: Bio Sciences, Chemistry and Geochemistry, Electrical Engineering, Mechanical Engineering, Software Engineering
- **9/18:** Puget Sound Naval Shipyard Info Session with free pizza (3:30 pm, Big Butte/Highlands Room).
Recommended Majors: All
- **9/18:** Chevron Info Session (5:00 pm, Kelly/Steward)
Recommended Majors: Petroleum Engineering, Environmental Engineering, Occupational Safety and Health, and Industrial Hygiene
- **9/19:** Freeport-McMoRan with free dinner (3:00 pm, Big Butte/Highlands Room)
Recommended Majors: All Engineering
- **9/19:** Pizza Party with St. Lukes (4:00 pm, HSB 008)
Recommended Majors: Nursing, Radiologic Technology
- **9/23:** Convo and Coffee with ConocoPhillips, coffee and snacks provided, drop-ins welcome (7:00 am-11:00 am, Big Butte/Highlands)
Recommended Majors: All Engineering, Occupational Safety and Health, Industrial Hygiene, Welding, Computer Science

DRIVER'S SAFETY TRAINING FOR CAMPUS

This online/self-paced course, offered by Risk Management and Tort Defense (RMTD), is full of information on driving a large vehicle with occupants or gear for the university system. The course is designed to educate drivers on operating a

wide variety of vehicles for MUS campuses. It expands coverage of defensive driving tips applicable to all motor vehicles while retaining information about the special techniques needed to safely drive the full-size sport utility vehicles and small buses still used by campuses. It also explains Board of Regents' driving policies and the stricter policies set by some campuses. Finally, it teaches what a driver should do if they are involved in a crash while driving on MUS business. The training is highly recommended if any MUS vehicle will be driven, and the training can be taken by any faculty, staff, or student of the university who can drive. Register [here](#).

