

CAMPUS REPORT

DATE: August 23, 2017
TO: Board of Regents
FROM: Donald M. Blackketter, Chancellor, Montana Tech
RE: Campus Report for the September 13, 2017 Board of Regents Meeting

STUDENT ACHIEVEMENT

- Jordan Foster, Chemistry and Geochemistry Undergraduate Research Program student in the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) had an abstract entitled “Stormwater in Silver Bow and Blacktail Creeks: Implications for the Microbial Community” published in the Intermountain Journal of Sciences. Dr. Cox was his coauthor.
- Zachary Smith, Environmental Engineering undergraduate presented his summer research at the Surf symposium entitled, “Nanoplastic Settling Potential in Saline Environments.”

FACULTY EFFORTS

- Dr. Courtney Young hosted the ASM Materials Camp for HS Teachers From July 10 to 14 this past summer for the 5th time in a row. 20 teachers participated including 12 from MT, 3 from ID, 2 from NV, and 1 each from CA, SD and CO. The goal of the camp is to get HS Teachers to do “Minerals, Metals and Materials” education in their classes and labs and to help recruit STEM students to MT Tech and particularly in the Metallurgical & Materials Engineering Dept.
- Dr. Katherine Zodrow presented a paper at the Association of Environmental Engineering Professors Meeting entitled “Treatment of Acid Mine Waste by Membrane Distillation.” Eric Hull, an Environmental Engineering graduate student was a co-author.
- Dr. Katherine Zodrow collaborated with others on a paper that was accepted for publication in Environmental Science and Technology entitled “Advanced Materials, Technologies and Complex Systems Analyses: Emerging Opportunities to Enhance Urban Water Security.”
<http://pubs.acs.org/doi/abs/10.1021/acs.est.7b01679>
- Matt Egloff, PE, in General Engineering, participated in the National Fire Protection Association (NFPA) Second Draft Meeting for NFPA 79, Electrical Standard for Industrial Machinery, held January 16 to 18, 2017 Renaissance Hotel New Orleans, LA. Mr. Egloff has served as a principal voting member and special expert on the committee since October 2012. The committee completed work on the 2nd draft for the current revision cycle of this standard. From their website <http://www.nfpa.org/overview>: *The National Fire Protection Association (NFPA) is a global nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. NFPA delivers information and knowledge through more than 300 consensus codes and standards, research, training, education, outreach and advocacy; and by partnering with others who share an interest in furthering our mission. NFPA membership totals more than 60,000 individuals around the world. NFPA also publishes the National Electric Code (NEC), NFPA 70.*
- Matt Egloff, PE, in General Engineering, participated in Second Draft Meeting for the NFPA Committee on Explosives, governing NFPA 495 Explosives Material Code, and 498 Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives, held by teleconference April 5, 2017. Mr. Egloff has served as a principal voting member and special expert on the committee since January 2008. The committee completed work on the 2nd draft for the current revision cycle of this standard.

- Matt Egloff, PE, in General Engineering, participated in the National Council of Examiners for Engineering and Surveying (NCEES) meeting of April 7-8, 2017. Mr. Egloff has served on the Fundamentals of Engineering (FE) Exam “Other Disciplines” committee since December 2016. Mr. Egloff engaged in training and test writing and review. From their website <http://ncees.org/about/>: *NCEES is a national nonprofit organization dedicated to advancing professional licensure for engineers and surveyors. NCEES develops, administers, and scores the examinations used for engineering and surveying licensure in the United States. It also facilitates professional mobility and promotes uniformity of the U.S. licensure processes through services for its member licensing boards and licensees.*
- Matt Egloff, PE, in General Engineering, participated in the National Coach Development Staff (NCDS) meeting held in Fairfax, VA July 20-21, 2017. The meeting focused on changes in training and methodology for training and certifying coaches. Mr. Egloff has been a member of the NCDS since 2011 and is certified as a level III coach in rifle and pistol, and level II in shotgun and high power rifle sports. Mr. Egloff provided early training for one Olympic competitor, Nick Mowrer, 2012 London Olympics, Free Pistol. Mr. Mowrer was also the National Collegiate Pistol Champion and an All American for MT Tech in 2008.
- Matt Egloff, PE, in General Engineering, has been selected to present at the 2017 Montana Joint Engineers Conference. The topic is “Thermodynamic Review for Power Generation and Use” in the IEEE section. The Conference will be held Nov 1-3, 2017 in Helena, MT.

CAMPUS HAPPENINGS

- The Department of Mathematical Sciences ran the fourth annual CREATE Math summer camp. The camp provides mathematical enrichment to girls in grades 3-8. This year, the two week camp focused on the mathematics of board and video games. Each participant created either a board game or a video game. The games were showcased during the final day of the camp for friends and family.
- The Department of Mathematical Sciences held the second MCubed (Montana Math Meet). Forty mathematics educators (K-16) came to the Montana Tech campus to learn about efforts across the state to improve mathematics instruction.
- Montana Tech has finalized its fall 2017 schedule of weekly public lectures, featuring 15 speakers on diverse topics. The talks are Thursday afternoons at 4pm, starting August 31, and the public is welcome.
- NRRC is fully operational with labs being conducted starting August 21, 2017

MONTANA BUREAU OF MINES AND GEOLOGY ACTIVITY

- The Earthquake Studies Office of the Montana Bureau of Mines and Geology is working collaboratively with personnel from the US Geological Survey and the University of Montana to monitor and analyze the ongoing aftershock sequence following the magnitude 5.8, July 6 Lincoln earthquake. So far, we have located 409 aftershocks with magnitudes ranging from 4.0 to less than 1.0. There have been 27 aftershocks that have had a magnitudes of 3.0 or larger. The US Geological Survey deployed three temporary stations shortly after the main shock. The University of Montana and MBMG Director of Earthquake Studies Michael Stickney recently deployed one station near the epicentral area and plan to deploy two more stations in the near future. Hundreds of aftershocks recorded by the Montana seismograph network remain to be analyzed. These data are a rich source of information about the active tectonics and seismic hazards in west-central Montana.
- MBMG Director of Earthquake Studies Michael Stickney presented **Recent Rumbings** to the Bozeman Rotary Club on July 11, 2017.

- MBMG Chief Analytical Lab Chemist Jackie Timmer and Chemist Ashley Huft both participated in an instructional tour of the lab and its equipment abilities to the Montana Tech Hydrogeology Field Camp Class on August 7, 2017.
- MBMG geologists Colleen Elliott, Katie McDonald, Dr. Petr Yakovlov, Dr. Kaleb Scarberry, Jesse Mosolf, Mike Stickney, Phyllis Hargrave, and Alan English attended the Tobacco Root Geological Society Field Conference in Leadore, Idaho on July 28-31, 2017. Colleen Elliott, Jeff Lonn, and Jesse Mosolf led field trips into the Beaverhead Mountains along the Montana-Idaho Border. Their field guides are published in Northwest Geology. Jeff Lonn and Petr Yakovlev presented talks. Jeff Lonn had his paper on **The Lemhi group type section revisited and revised, east-central Idaho** published in Northwest Geology, July 2017.
- MBMG Geologist Dr. Kaleb Scarberry, and Hydrogeologist Alan English volunteered at the Montana Learning Center in Canyon Ferry on July 11th and 25th to work with 5th – 9th grade science students from all over the state to collect Agate and Opal at “White Earth” and discussed how the landscape formed.
- MBMG Director and State Geologist Dr. John Metesh, Program Manager of Ground Water Assessment Program John LaFave and Ground Water Investigations Program Leader Ginette Abdo presented **Water Research: Overview of Water Programs at MBMG** at the Water Policy Interim Committee in Helena, Montana on August 2, 2017.
- MBMG Hydrogeologist Alan English presented **Geology of the Caverns** at the Lewis and Clark Caverns in Whitehall on August 11, 2017.
- MBMG Geologist Dr. Dick Berg presented **Sapphires!** at the Lewis and Clark Caverns in Whitehall on June 30, 2017.
- MBMG GIS Manager Paul Thale presented **Identification of Areas Susceptible to Ground Subsidence Due to Mine Drift or Shaft Collapse in Butte, Montana** at the ESRI User Conference in San Diego, California, July 12, 2017.
- The Montana Bureau of Mines and Geology released EDMAP 11: Geologic Map of the Mount Thompson 7.5' quadrangle, southwest Montana by Olson, N.H., Sepp, M.D., Dilles, J.H., Mankins, N.E., Blessing, J.M., and **Scarberry, K.C.**