

CAMPUS REPORT

DATE: May 1, 2019
TO: Board of Regents
FROM: Donald M. Blackketter, Chancellor, Montana Tech
RE: Campus Report for the May, 2019 Board of Regents Meeting

STUDENT ACHIEVEMENT

- Environmental Engineering students Kile Denny, Matthew Fidler, Grace Kurtz, and Trystin Larson won first place in Task 3 (Selenium Water Treatment and Recovery) at the WERC Environmental Design Contest (April 7-9) in Las Cruces, New Mexico. They were advised by Katherine Zodrow and Raja Nagisetty.
- Johnathan Feldman, MS in Geochemistry student in the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) in the Chemistry & Geochemistry Department gave a poster presentation at the Montana American Water Resources Association Conference in West Yellowstone October 17-18 titled 'Aqueous metal and semimetal speciation in Silver Bow and Blacktail Creeks.' Dr. Cox and LEGEND alumna, Renee Schmidt, co-authored.
- Nathan Carpenter, MS in Geochemistry student in LEGEND in the Chemistry & Geochemistry Department gave a poster presentation at the Montana Aquatic Research Colloquium (MARC) at the Flathead Lake Biological Station (FLBS) April 12-14 titled "Mycorrhizal-Assisted Metal and Metalloid Uptake of Native Plants ". Dr. Cox and Dr. Pal of Chemistry & Geochemistry and Biological Sciences co-authored.
- Johnathan Feldman, MS in Geochemistry student in LEGEND in the Chemistry & Geochemistry Department gave a poster presentation at the MARC at the FLBS April 12-14 titled 'Aqueous metal and semimetal speciation in Silver Bow and Blacktail Creeks.' Dr. Cox and LEGEND alumna, Renee Schmidt, co-authored.
- Kyle Nacey, MS in Geochemistry student in LEGEND in the Chemistry & Geochemistry Department gave a poster presentation at the MARC at the FLBS April 12-14 titled "Trace Element Geochemistry at the East Pacific Rise". Dr. Cox co-authored.
- Isaiah Robertson, MS in Geochemistry student in LEGEND in the Chemistry & Geochemistry Department gave an oral presentation at the MARC at the FLBS April 12-14 titled "Limitations to Photosynthesis in Silver Bow and Blacktail Creeks". Dr. Cox co-authored.

- Two student athletes from the Montana Tech hockey team, offensemen Connor Froc (Senior in Civil Engineering) and Robin Bagley (Freshman in Business & Information Technology), were selected to represent the eight teams in the Mountain West Collegiate Hockey League (MWCHL) at the American Collegiate Hockey Association DII National All Star Tournament in April. This tournament occurs every other year and each of the nineteen leagues in Division II sends a team. From this tournament, players will be selected to represent the ACHA Division II on the team that travels overseas the following academic year. This October, the Select team will compete in the 3rd Annual Student Hockey Challenge in Barnaul, Russia. Previously, a Select team was named every other year and they traveled to Europe to play several pro teams and European University All Star teams. Two Montana Tech players have previously been honored to skate for the Select team, Conrad Smith in 2013 and Douglas Abbott Jr. in 2015.
- Sterling Richard, a graduate student in Petroleum Engineering, will be presenting his paper “Improved Methods of Measuring Proppant Conductivity” at the SPE Western Regional Meeting, April 23rd-26th in San Jose, CA. Co-authors on the paper are Susan Schrader, Richard Schrader and Blake Ereaux. Susan and Rich are faculty in Petroleum Engineering and Blake is an alumni.
- Data Science students Keith Bocian, Jessica Jones, Mariia Korol, Amanda Marinovich, Keelie Lawler, and Hunter Boles, along with faculty advisor Rick Rossi (Statistics), participated in the American Statistical Association (ASA) sponsored DataFest held at MSU-Bozeman on April 12-14. Montana Tech fielded two teams in this year’s DataFest with Keith Bocian, Jessica Jones, Mariia Korol, Amanda Marinovich making up one team and Keelie Lawler, and Hunter Boles making up the other. DataFest is a celebration of data in which teams of undergraduates work around the clock to find and share meaning in a large, rich, and complex data set. A key feature of ASA’s DataFest is that it brings together the data science community. Undergraduate students do the work, but they are assisted by roving consultants who are graduate students, faculty, and industry professionals.

FACULTY EFFORTS

- Dr. Courtney A. Young, Dept Head of Metallurgical & Materials Engineering, was honored at SME Annual Meeting in Denver when the book he help organize and edit was finally put into print. The *Handbook of Mineral Processing and Extractive Metallurgy* was a six year effort. The two-volume set contains 128 chapters and nearly 2400 pages.
- Dr. Alysia Cox of the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) in the Chemistry & Geochemistry Department dove in the Deep Submergence Vehicle (DSV) Alvin (dive 5007, max depth 2522m) to study hydrothermal vents on the seafloor at the

East Pacific Rise (EPR) in Dec 2018. Her dive contributed to the Early Career Chief Scientist training cruise aboard the research vessel (R/V) Atlantis sponsored by University-National Oceanographic Laboratory System (UNOLS), National Science Foundation (NSF), and American Geophysical Union (AGU). As part of the voyage, multidisciplinary early career scientists planned and executed a research program at sea using the DSV Alvin and autonomous underwater vehicle (AUV) Sentry and participated in outreach events, including talking to the AGU Meeting from Alvin and guiding a full day of tours for the public at port in San Diego of the R/V Atlantis, DSV Alvin, and AUV Sentry.

- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department gave the Chemistry & Biochemistry seminar at the University of Montana on February 4th, titled 'Rock controls on life: From the seafloor to the continent'.
- Matt Egloff was elected Post Commander of American Legion Post 115, Butte, Montana, for the 2019-2020 year. He previously served as Service Officer for the Post. Mr. Egloff was also re-elected as a Trustee for Butte Veteran's of Foreign Wars Post 1448.
- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department was interviewed for the Montana Standard for the article "Montana Tech professor to share her experience diving to the ocean floor" on February 21st.
https://mtstandard.com/news/local/montana-tech-professor-to-share-her-experience-diving-to-the/article_32666d04-058c-5059-bdb6-0cbd601852f5.html
- Matt Egloff participated in the opening ceremonies of the new American Legion Post 1 building, and the 100th anniversary of that Post, and of the American Legion. Montana's Congressman Greg Gianforte and BSB County Executive Dave Palmer were among the speakers. <https://kxlf.com/news/local-news/2019/04/14/american-legion-celebrates-100th-anniversary-new-post-building-in-butte/>
- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department gave the Montana Tech Public Lecture Series seminar on February 21st titled "Rocks, Hot Water, Microbes, and More: Diving to Seafloor Hot Springs."
- Dawn Atkinson and Stacey Corbitt, full-time instructors in the Writing Program, have been awarded a Faculty Seed Grant to compose an open textbook for a co-requisite pairing of developmental writing and introduction to technical writing, a niche pedagogical focus within the corpus of open and co-requisite textbooks currently available. They aim to post their product to the Open Textbook Library. Their project will also gather empirical data to explore what principles and processes are followed during textbook development; this data may offer implications for the practice of textbook writing to supplement existing literature on textbook development.
- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department was interviewed for the television station, KXLF on February 21st, titled "MT Tech professor hopes to inspire students with her ocean diving experience."

<https://nbcmontana.com/news/local/mt-tech-professor-hopes-to-inspire-students-with-her-ocean-diving-experience>

- In March 2019, Dr. Dawn Atkinson, Assistant Professor and Director of Writing, attended the International Center for Academic Integrity's annual conference in New Orleans. Although the conference focused on many topics to do with academic integrity, including grade inflation, a considerable portion of the program was dedicated to contract cheating—a growing concern at higher education institutions across the globe.
- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department was interviewed for the premiere episode of the radio program What Are You Studying (WAYS) by Daniel Hogan on the local station KBM 102.5, titled "WAYS: Alysia Cox Ventures to the Ocean Floor." <http://www.butteamericaradio.org/superfund101/2019/3/13/ways-alyisia-cox-ventures-to-the-ocean-floor>
- Dr. Glen Southergill was selected to participate in the Rhetoric Society of America's Project in Power, Place, and Publics at the University of Nevada—Reno in May 2019 (https://www.rhetoricsociety.org/aws/RSA/pt/sd/news_article/190079/PARENT/layout_details/false). Under the supervision of Dr. Jacqueline Royster (Dean of Georgia Tech's Ivan Allen College of Liberal Arts), Dr. Southergill will work within the "Understanding Deep Roots" group to engage with community members, understand the neighborhood-campus intersection, and enhance the University's master plan (https://www.rhetoricsociety.org/aws/RSA/pt/sd/news_article/171946/blank/layout_details/false).
- Dr. Alysia Cox gave an IGNITE talk at the Bringing Research Into the Classroom Symposium held at Fairmont Hot Springs April 9th.
- Rayelynn Brandl, Director of CFWEP, received the 2019 *Distinguished Informal Science Educator Award* from The National Science Teachers Association (NSTA) and sponsored by the U.S. Army Educational Outreach Program (AEOP). Ms. Brandl was presented with the award at a special banquet and ceremony on Friday, April 12, 2019, at the NSTA National Conference on Science Education in St. Louis, Missouri.
- Dr. Alysia Cox of LEGEND in the Chemistry & Geochemistry Department gave an oral presentation at the Montana Aquatic Research Colloquium (MARC) at the Flathead Lake Biological Station (FLBS) April 12-14 titled "Host Rock Influences on
- Geochemistry: Andean and Yellowstone Hot Springs ". Dr. St. Clair of CAMP co-authored.

MONTANA BUREAU OF MINES AND GEOLOGY ACTIVITY

MBMG conference presentations and attendance:

- Geologist J. Mosolf presented “Early Cenozoic volcanism in the northern Cordillera: new insights from the Eocene Dillon Volcanic Field, southwest Montana” at the Earth Sciences Seminar Series at MSU-Bozeman, Bozeman, Montana, April 25, 2019.
- Director of Earthquake Studies M. Stickney participated in Idaho's Earthquake Clearinghouse Table Top Exercise via six telephone conference calls, March 5-7, 2019
- Director of Earthquake Studies M. Stickney presented “Using LiDAR Data to Identify and Analyze Geologic Hazards” at the Big Sky GeoCon Meeting, Butte, Montana, April 4, 2019.
- Hydrogeologist J. LaFave presented “Understanding Montana’s Groundwater” at the Spring Water School, Billings, Montana, March 5, 2019 and Kalispell, Montana, March 26, 2019.
- Hydrogeologist J. LaFave presented “Groundwater and Domestic Wells in the upper Yellowstone Watershed” at the Upper Yellowstone Drought Focus Group, Livingston, MT, April 11, 2019.
- Hydrogeologist A. Bobst attended and presented “Using Groundwater Modeling to Understand Effects from Beaver Mimicry Stream Restoration” at the Montana Aquatic Research Consortium Conference, Polson, Montana, April 12-14, 2019.
- Hydrogeologists J. LaFave and G. Abdo presented “Irrigation Recharge in Montana” at, and M.Gotkowitz attended, the Irrigation Efficiency Working Group Meeting, Helena, MT, March 7.
- Computer Support Specialist S. Bierbach and Hydrogeologist D. Blythe attended the MT Assoc. of Geographic Information Professionals Big Sky Geocon Conference, Butte, MT, April 1-4, 2019.
- Data Scientist L. Buckley attended ESRI Developer’s Summit, Palm Springs, CA March 2-8, 2019.

MBMG educational outreach efforts:

- GIS Specialist Y. Li presented “Introduction to ArcGIS Online” to the GPHY 284 class at Montana Tech, Butte, Montana, April 22, 2019.
- Hydrogeologist A. Gebril presented “Wadi Ghan Earthfill Dam in Libya” at a seminar for MBMG Staff and Guests, Butte, Montana, April 16, 2019.
- Economic Geologist S. Korzeb presented “Cathodoluminescence for Determining Quartz Textures” at a seminar for MBMG Staff and Guests, Butte, Montana, March 26, 2019.
- Hydrogeologist G. Icopini presented “History and Recent Changes in the Geochemistry of the Berkeley Pit Lake” to a BYU-Idaho class in Butte, Montana, April 2, 2019.
- Geologist C. Elliott presented “Western Montana Field Work: Ringing Rocks” at a seminar for MBMG Staff and Guests, Butte, Montana, March 5, 2019
- Geologist P. Yakovlev presented Cenozoic Deformation in Western Montana: Insight from Low Temperature Thermochronometry at the 2019 Seed Grant Seminar, Butte, MT April 9
- MBMG Chemist A. Huft provided an instructional tour for five employees from TREC/Woodard & Curran, Butte, Montana, April 15, 2019

CAMPUS HAPPENINGS

- An organizing committee with representatives from the MUS 4-year campuses, OCHE, and US Department of Energy national labs is in the early stages of planning Montana's first DOE National Lab day, to be held October 8-9, 2019 at Montana Tech.