

CAMPUS REPORT

DATE: June 25, 2019
TO: Board of Regents
FROM: Donald M. Blacketter, Chancellor, Montana Tech
RE: Campus Report for the July, 2019 Board of Regents Meeting

STUDENT ACHIEVEMENT

- Students in the MT Tech Civil Engineering Print Reading class (ECIV 291) reviewed the prints and specifications for the Southwest Montana Veteran's Home, and laid out several of the rooms in the HPER building to check for accessibility and other issues. This was done in cooperation with the MT Tech Athletic Department and MT Tech Nursing Department. Tom Goyette and Eileen Greb, both Vietnam Veterans and members of the SW Mountain Veteran's Home Foundation, were on hand to document accessibility and feasibility of the plans. Many thanks to the faculty, staff, students, and SW Montana Veteran's Home Foundation for their participation.
- Former Montana Tech Metallurgy Major Nick Mowrer took 4th place at the USA Shooting (US Olympic Team) National Championship 3-Position rifle event. <https://www.usashooting.org/news/2019/6/24/1210-olympic-hopefuls-rise-up-on-olympic-day-at-riflepistol-national-championships-and-shotgun-junior-olympics> Mowrer will be competing in pistol later in the week.
- Nick Mowrer competes in both rifle and pistol events. He is a triple-distinguished shooter. He placed 15th in Free Pistol in the 2012 London Olympics and won a Bronze Medal in the 2014 World Cup in Prone Rifle. <https://indianexpress.com/article/sports/sport-others/issf-world-cup-nick-mowrer-shoots-in-both-pistol-and-rifle-5603189/>
- Nick Mowrer was the National Collegiate Pistol Champion for Montana Tech in 2008, barely edging Billings, MT native Seth Berglee, who was competing for Ohio State. Ohio State then recruited Nick away from Montana Tech with a scholarship. Nick Mowrer is currently a member of the US Army World Class Athlete Program. Seth Berglee later joined the Army Marksmanship Unit and is currently the Representative for Montana House District 58, Majority Whip, and Chairman of the House Education Committee. Both Mowrer and Berglee have won multiple titles and events in the shooting sports.

FACULTY EFFORTS

- Dr. B. Todd Hoffman, Petroleum Engineering faculty, attended the 81st Annual European Association of Geoscientists and Engineers (EAGE) Conference and Exhibition where he was invited to chair a technical session on Integrated Subsurface Studies and also presented a paper titled "Enhanced Oil Recovery in Unconventional Reservoirs".

- Dr. Courtney Young and his PostDoc, Dr. Rick LaDouceur (May 2018), and his former PhD Student, the now Dr. Simon Timbillah (May 2019), along with Dr. Avimanyu Das, all of the Metallurgical & Materials Engineering Department, had a paper accepted for presentation at Copper 2019, a meeting in Vancouver BC, Canada, August 18-21, 2019. Their publication was just accepted and will appear in the peer-reviewed proceedings. It is entitled “Orfom® D8: a Viable Replacement for NaHS as a Depressant in the Chalcopyrite-Molybdenite Flotation System” and will be presented by Dr. LaDouceur.
- Dr. Nagisetty, Associate Professor of Environmental Engineering, Mr. Uecker (former graduate student) and Dr. Flynn, published a peer-reviewed paper: “Dissolved Oxygen Modeling of Effluent-dominated Macrophyte-rich Silver Bow Creek”, *Ecological Modelling*, Volume 393, 1, 2019, 85-97.
- Dr. Nagisetty, Dr. Xiaobing and Mr. Crowley received \$40,000 from Montana Space Grant Consortium for an education enhancement grant titled “Satellite and Unmanned Aircraft System Remote Sensing for Hydrological Modeling”.
- Mr. Matt Egloff, PE, attended and participated in the spring 2019 Fundamentals of Engineering (FE) Other Disciplines exam meeting at NCEES HQ in Clemson, South Carolina. Mr. Egloff engaged in exam development tasks with the other committee members. The FE is the first of the two exams taken by prospective engineers to become licensed.

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
- Geologist C. Elliott hosted a reception for Montana Environmental Education Association Annual Conference with the Science Mine, Fairmont, Montana, March 22, 2019
- Three staff members judged at the Montana Tech Regional Science & Engineering Fair, Div. 1, High School Science Fair, Butte, Montana, March 7, 2019.
- Seven staff members judged at the 2019 Montana Tech Middle School Science & Engineering Fair, Butte, Montana, March 12, 2019.
- Hydrogeologist A. English served as paper reviewer for the Intermountain Junior Science Symposium, Institute for Education Opportunities, Montana Tech, Butte, MT, February 9, 2019.
- Hydrogeologist A. English assisted with field trip to Museum of the Rockies for Hawthorn School, Bozeman, Montana, February 4, 2019.
- MBMG Director of Earthquake Studies, Mike Stickney, provided press comments for articles:
 - Seismic activity in Montana means potential for large earthquake: NBC Montana, by Marian Davidson, March 27, 2019: <https://nbcmontana.com/news/local/seismic-activity-in-montana-means-potential-for-large-earthquake>
 - Earthquake, aftershocks hit southwestern Montana: The Lewistown Tribune, by Matt Volz, April 10, 2019: https://lmtribune.com/northwest/earthquake-aftershocks-hit-southwestern-montana/article_d97412c1-bc0b-5835-9dd3-a00e8a376262.html
 - Earthquake, aftershocks hit southwestern Montana: Hastings Tribune, by Matt Volz, April 9, 2019: http://www.hastingstribune.com/earthquake-aftershocks-hit-rural-southwestern-montana/article_aafde608-4490-533c-92e1-9875bcbd3473.html
 - Earthquake, aftershocks hit rural southwestern Montana: NBC Montana, by Associated Press, April 9, 2019: <https://nbcmontana.com/news/local/earthquake-aftershocks-hit-rural-southwestern-montana>
 - Southwestern Montana Hit with Earthquake, Aftershocks: Insurance Journal, by Associated Press, April 11, 2019: <https://www.insurancejournal.com/news/west/2019/04/11/523476.htm>

- 4.4 magnitude earthquake, aftershock, hits near Lima: Montana Standard, by Ted McDermott, April 9, 2019: https://mtstandard.com/news/local/magnitude-earthquake-aftershock-hits-near-lima/article_ee9f8143-cb1c-5a2a-8c5a-68aa9a62efa1.html
- Aftershocks and earthquakes rumble near Lima: KXLH.com, by Associated Press, April 10, 2019: <https://kxlh.com/news/montana-and-regional-news/2019/04/10/aftershocks-and-earthquakes-rumble-near-lima/>
- Earthquake, aftershocks hit rural southwestern Montana: Bozeman Daily Chronicle, by Matt Volz, April 9, 2019: https://www.bozemandailychronicle.com/ap_news/montana/earthquake-aftershocks-hit-rural-southwestern-montana/article_13e252e7-98d7-51b6-ac57-d8e338960ed6.html
- Earthquake shakes southwest Montana: Bozeman Daily Chronicle, by Michael Wright, February 22, 2019: https://www.bozemandailychronicle.com/news/earthquake-shakes-southwest-montana/article_3d92a30e-60a7-583e-b253-068ebce8f439.html
- Great Falls homeowners say they experienced forms of earthquakes: ABCFOXMontana, by the Associated Press, March 5, 2019: https://www.abcfoxmontana.com/wakeup-montana/great-falls-homeowners-say-they-experienced-forms-of-earthquakes/article_566038ea-3f4c-11e9-8d76-6318d3a83155.html

MBMG committee and public meeting participation:

- Director and State Geologist J. Metesh and Director of Earthquake Studies M. Stickney attended the Western State Seismic Policy Council Meeting, Salt Lake City, UT, April 24-26, 2019.
- Hydrogeologist J. LaFave attended the National Ground-Water Monitoring Network Program Advisory Board Meeting, March 10-14, Tucson, Arizona, 2019.
- Hydrogeologist C. Carstarphen and Research Division Chief M. Gotkowitz attended a public meeting about groundwater quality in Plains, Montana, March 12, 2019
- Hydrogeologist M. Southerland attended a meeting of the Gallatin Watershed Network, Bozeman, Montana, April 8, 2019.

Publications by MBMB scientists including those published by the MBMG

- Meredith and Blais, 2019. Quantifying Irrigation Recharge Sources Using Groundwater Modeling, Agricultural Water Management, v. 214, p. 9-16.
- Special Publication 120: Proceedings of the Montana Mining and Mineral Symposium 2018, Scarberry, K.C., and Barth, S. http://www.mbm.mtech.edu/mbmgcat/public/ListCitation.asp?pub_id=32105&
- Geologic Map 73: Geologic map of the Twin Adams Mountain 7.5' quadrangle, southwestern Montana, McDonald, C., and Yakovlev, P. http://www.mbm.mtech.edu/mbmgcat/public/ListCitation.asp?pub_id=32105&
- Geologic Map 72: Geologic map of the Ramsay 7.5' quadrangle, southwestern Montana, Kaleb C. Scarberry. http://www.mbm.mtech.edu/mbmgcat/public/ListCitation.asp?pub_id=32105&

CAMPUS HAPPENINGS

- Between July 13 and 20, 2019 a delegation from the University of Kashmir (India) will visit the Montana Tech Campus. The purpose of their visit is to discuss the results of a collaborative project that was initiated between Montana Tech associate professor Dr. Robert Pal and University of Kashmir associate professor Dr. Manzoor A. Shah. It is a prestigious U.S.-India 21st Century Knowledge Initiative Award, for the project titled “Proactive management models for the effects of climate change on the range of invasive species.” 2019 is the final year of the three-year grant, which already resulted in valuable scientific outcomes and a vivid relationship with mutual visits of faculty and students between the two universities.

At the current visit, Professor Talat Ahmad, the Vice Chancellor of the University of Kashmir, will also participate in order to further facilitate collaborative partnerships with other departments of Montana Technological University.