

CAMPUS REPORT

DATE: August 30, 2012
TO: Board of Regents
FROM: Donald M. Blackletter, Chancellor, Montana Tech of The University of Montana
RE: Campus Report for the September 19-20, 2012 Board of Regents' Meeting

- Highlands College has continued its partnership with the Butte School System to offer Adult Community Education courses. Ten classes have been scheduled for the Fall 2012 semester.
- The new logo for Highlands College was approved by OCHE and implemented in signage, recruiting publications and the catalog.
- Highlands College is adding an External Advisory Board and a Local Branding Task Force.
- As funding for the Sustainable Energy Technology Wind grant is ending, Montana Tech institutionalized the program by hiring a tenure track faculty member, John Jackam. Vision/exploration plans to expand this program will include the alternative energies of solar and geothermal.
- Highlands College Historic Preservation student, Paul Hart, enjoyed an internship this summer in which he worked 177 hours researching and accurately reconstructing the Richardson Cabin at the Nevada City Living History Museum, working in conjunction with the Montana Heritage Commission. This internship was so successful that the Montana Heritage Commission is asking for more student interns in the future to assist them in their valuable preservation work.
- Responding to local demand, Highlands College faculty and faculty from Tech's College of Letters, Sciences and Professional Studies expanded the existing Bachelor of Applied Science in General Studies to two-year students interested in the area of Construction Management.
- Highlands College is planning for its official recognition and celebration kickoff scheduled for Monday, September 10th. The event is being sponsored and conducted by the Highlands College Student Leadership.
- Highlands College has installed a large new sculpture in its Commons area. The sculpture was created this summer by adjunct faculty member, Allen Hanson, based on a design by Construction Technology student, Justin Palin.
- Dr. Martha Apple of the Dept. Of Biological Sciences, D. J. Moritz, (a Mathematics student at Montana Tech), Alice Martin, (a Biology student at U of M), and Charlie Apple, (an artist and musician), conducted field research in July and August, 2012 on rare arctic and alpine plants along the edges of retreating snowfields and glaciers at Glacier National Park. This research is funded through the National Park Service and is conducted in order to contribute to our knowledge of the responses of snowfield plants to climate change.
- Dr. Courtney Young of Met & Mat Eng gave an invited presentation on "ARD Remediation with Slag: An Application to Berkeley Pitlake Water" at the **U.S. EPA Hardrock Mining Conference 2012: Advancing Solutions for a New Legacy** on April 3-5, 2012 in Denver, Colorado in the session entitled "Monitoring and Treatment." Because the paper was well received, he has accepted offers to give it again as a webinar to U.S. EPA over the internet on Sept 19, 2012 as well as at the Montana AWRA conference at Fairmont Hot Springs on October 10-11, 2012.
- *Montana Outdoors* magazine used Dr. Pat Munday's photo of Silver Bow Creek to illustrate an upcoming article about the stream's environmental remediation and restoration. Another of his photographs, "Pink Snow," will be used to illustrate an article by the Weather Channel at weather.com.
- Munday's article "Thinking through Ravens: Human Hunters, Wolf-birds, and Embodied Communication" was published as a chapter of the book *Perspectives on Human-Animal Communication* (Routledge 2012).
- Suzan Gazioglu, Associate Professor of Mathematical Sciences published a peer reviewed article in a Statistics journal: Gazioglu, S., "Studying Discrepancies in Compartmental Models," *Advanced Studies in Contemporary Mathematics*, 2012, Vol. 22, No. 2, pages: 249-290.
- Larry Smith, Geological Engineering, John Getty and student Tim Denton, both from Petroleum Engineering, spent a day in the field evaluating a mining claim in an outcrop of the Tensleep Formation in Carbon County, MT. The claim holder, Montana Frac Sand LLC, is evaluating the formation as a source of proppant for hydraulic fracturing of oil and gas wells.

- John Getty, Petroleum Engineering, in collaboration with the Montana Bureau of Mines and Geology, submitted a proposal to the Montana Board of Oil and Gas Conservation, entitled “SNaP, A Survey of Native Proppant Resources within Montana.” At their June meeting, the Board of Oil and Gas agreed to fund the first year of the project in the amount of \$126,270.
- In June, Montana Tech Biology Professor and Chairperson Dr. Amy Kuenzi and Associate Professor Dr. Marisa Pedulla, along with biology students Casey McConnell and Adam Fine, attended and presented their work at the 2012 NISBRE Biannual Meeting in Washington DC. Research programs of Drs. Kuenzi and Pedulla are supported by the National Institutes of Health Montana INBRE program.
- In May, Dr. Hilary Smith Risser was elected to the board of the Montana Council of Teachers of Mathematics (MCTM). MCTM is a state affiliate to the National Council of Teachers of Mathematics. Dr. Smith Risser will serve a three year term as a board member.
- Waleed Al-Rawashdeh, Mathematical Sciences Assistant Professor, authored the paper “*Weighted Composition Operators on Weighted Bergman Spaces of the Unit Ball*” which appeared in volume 78(2012), 161-183, of the “*Int. J. of Pure and Applied Math.*”
- Liberal Studies Professor Robert Ziegler announced the publication of his most recent book, *Satanism, Magic, and Mysticism in Fin-de-siècle France* (Palgrave/Macmillan 2012).
- The Department of Geological Engineering recently signed agreements for use of industry-standard software valued at more than \$1 million for use in teaching Petroleum Geology. Working with IHS of Englewood, Colo., a provider of energy insight and analytics, Associate Professor Larry Smith obtained multiple licenses for two of its industry-leading oil and gas interpretation and well mapping systems— IHS Petra® and IHS AccuMap®. The software will be used for interpreting logs of oil and gas well data in cross section and map forms in the classroom and for graduate research projects.
- The National Science Foundation (NSF) has awarded Montana Tech \$145,829 in year one funding as part of a continuing grant in the amount of \$597,181 to support Montana Tech’s project, *Montana Minds - Scholarships for Science, Engineering, and Mathematics*.
- Montana Tech announces music course offerings and encourages Tech students and community members to audition for the newly formed Choral Union. Montana Tech will offer Choral Union and Voice Lessons, and will continue to offer Band. Music students will participate in the Butte Symphony.
- Matt Vincent, director of Montana Tech’s Clark Fork Watershed Education Program (Cfwep.Org), announced that the Governor’s Trustees Restoration Council recently approved the extension of an education contract for Cfwep.Org through the 2014 fiscal year. The funding, approved unanimously, amounts to \$752,467.
- Drs. John and Roberta Ray of Montana Tech’s Liberal Studies Department have had papers/presentations accepted for the annual National Communication Association (NCA) Convention to be held in Orlando, Florida this fall. Dr. John Ray sent a paper entitled "Parliamentary Procedure and the Building of a Community." Dr. Roberta Ray’s paper is entitled: "Parliamentary Procedure: A Key to Community Involvement."
- Montana Tech’s Institute for Educational Opportunities was recently awarded a \$1,430,481 U.S. Department of Education grant to continue the Montana Tech Upward Bound Program which serves high school students in Anaconda, Butte and Helena.
- The Board of Trustees of The Barry M. Goldwater Scholarship and Excellence in Education Foundation is announced the selection of Dr. W. Franklin Gilmore as President of The Foundation. Dr. Gilmore’s appointment has been approved by the Executive Office of the President, making Dr. Gilmore only the second person to hold the title in The Foundation’s 26-year history. Dr. Gilmore is Chancellor Emeritus of Montana Tech and Professor Emeritus of the University of Mississippi.
- Tyler Broden, a graduate student in Metallurgical & Materials Engineering, was awarded a \$1000 scholarship from WAAIME in a competitive but needs-based national competition.
- Montana Tech will get a boost to their recycling efforts this summer thanks to the Coca-Cola Bin Grant Program. Montana Tech will receive 120 recycling bins designed specifically for campus.
- Montana Tech’s Petroleum Engineering Department took a four day field trip with a group of 61 sophomore students to Rock Springs, Wyoming to tour oil and gas field operations. Hosted by petroleum companies including BP, Anadarko, Halliburton, and Shell, students toured a drilling rig, a hydraulic fracturing job, an enhanced oil recovery (CO2 injection) project, oil and gas production facilities, and a gas liquids processing facility. Part of a one-credit course for petroleum engineering

majors, the trip was led by faculty members Burt Todd, Dave Reichhardt, Rich Schrader, and Mary North-Abbott.

- Brian Kukay, Associate Professor of General Engineering at Montana Tech, was the lead author for a chapter on "Fire Damage of Wood Structures," along with two nationally recognized authorities Dr. Robert White (a Research Wood Scientist at the National Forest Products Laboratory) and Dr. Frank Woeste (a Professor Emeritus at Virginia Tech). Their chapter is part of an exhaustive, ten-chapter guide for the structural engineer, titled, "Inspection, Testing, and Monitoring of Buildings and Bridges." According to the books authors, "It is anticipated that this document will be the guide that all structural engineers in the United States must have." The book is published by the National Council of Structural Engineers Associations and the International Code Council.
- Brian Kukay (member of the SEI Technical Activities Division Timber Bridge Committee) and graduate student Daniel Zieske are conducting a nation-wide "Survey of Timber Bridge Construction and Maintenance." The survey will be used to determine the extent of the use of wood for vehicular bridges and to assist in resolving issues that bridge owners might be experiencing. Results will be presented to the American Association of State Highway and Transportation Officials in the coming year.
- Montana Tech's Student Chapter of A.S.C.E. placed 5th overall in the 2012 Northwest Regional Concrete Canoe Competition hosted by the University of Washington in Seattle. The men's teams placed second in the sprints and endurance races. The concrete canoe team members consisted of Dustin Hover, Tommy Walter, Laura Campbell, Rachel Gerhart, Keri Furthmyre, Ty Breuer and Kevin Schey. Fourteen members of the student chapter participated in the conference and competitions this year with faculty advisor Brian Kukay.
- Montana Bureau of Mines and Geology staff members met on May 1, 2012 with a delegation of miners from Senegal, Africa who were traveling in the United States to learn about American methods of environmentally safe and responsible mining. The meeting concluded with MBMG hydrogeologist Garrett Smith guiding a tour of Butte's Berkeley Pit.
- On May 3, 2012 the Montana Bureau of Mines and Geology (MBMG) hosted the Underground Mine Safety Health Administration's Refresher training session. The class was instructed by Robin McCullough, the MBMG's Staff Mining Engineer. Twenty-five attendees came from federal (BLM, USFS, USEPA, and USBR) and state (DEQ, NRD, MBMG) agencies.
- On May 4, 2012 the Montana Bureau of Mines and Geology (MBMG) hosted an 8 hour OSHA/MSHA training session for 40 attendees from federal (BLM, USEPA, USBR) and state (DEQ, NRD, MBMG, Montana Tech Faculty) agencies.
- Jon Reiten and Kevin Chandler, hydrogeologists with the Montana Bureau of Mines and Geology (MBMG), offered a presentation on May 16, 2012 discussing projected water needs by the oil and gas industry for hydrofracturing the Bakken Formation in Eastern Montana. Reiten and Chandler presented to the Mountain West Water Institute's *Water Ways and Means Workshop* in Idaho Falls, Idaho.
- The Montana Legislature's Energy and Telecommunications Interim Committee met at Montana Tech on May 17-18, 2012. MBMG presentations to the committee addressed the Bureau's data-management efforts, specifically the online Ground Water Information Center (GWIC) and future plans for online distribution of mining-property data. Director and State Geologist, Dr. Edmond Deal, Assistant Director, Dr. John Metesh, and Ground Water Assessment Program leader, John LaFave addressed the committee. During the meeting, the committee toured Montana Tech's geothermal project site.
- Montana Bureau of Mines and Geology hydrogeologist Garrett Smith gave a presentation about, and tour of, Butte's Berkeley Pit to 7th and 8th grade students from Bozeman, Montana on May 24, 2012.
- The Montana Bureau of Mines and Geology released Open File Report 613, Geochemical and Hydrogeologic Investigation of Groundwater Impacted by Wastes Left in Place In Butte, Montana on June 1, 2012. The report's authors are MBMG hydrogeologists Nick Tucci and Gary Icopini.
- MBMG Hydrogeologist Nick Tucci led 40 international geoscience professors on an all-day field trip detailing the Geology of the Butte Mining District. The presentation took place on June 7, 2012 and was part of a NSF-sponsored National Association of Geoscience Teachers trip.
- Director and State Geologist, Dr. Edmond Deal and Thomas Patton, MBMG Research Division Chief and Associate State Geologist attended the Association of American State Geologists annual meeting in Austin, Texas June 9-13, 2012.
- On June 21, 2012, MBMG Research Division Chief Thomas Patton attended the annual Poplar River Bilateral Monitoring Committee meeting between the United States and Canada during which the 2011

- report to the governments of Canada, United States, Saskatchewan, and Montana was reviewed. The report tracks environmental conditions near the Poplar River Power Station, Coronach, Saskatchewan.
- MBMG hydrogeologist Nick Tucci led a field trip for 30 BP-Arco employees to the Berkeley Pit on July 23, 2012.
 - On July 26, 2012, MBMG hydrogeologists Gary Icopini and Nick Tucci presented a lecture to the Butte Natural Resource Council (BNRC) on the Geochemical and Hydrogeologic Evaluation of Groundwater Impacted by Wastes Left in Place in the Butte Priority Soils Operable Unit, Butte, Montana. The event was open to the public and about 50 people attended.
 - Montana Bureau of Mines and Geology hydrogeologist Garrett Smith gave a presentation about, and tour of, Butte's Berkeley Pit to Iraqi and American students on July 27, 2012.
 - Montana Bureau of Mines and Geology Earthquake Studies Director and President of the Tobacco Root Geological Society, Mike Stickney, led a field trip on July 28, 2012 to the epicentral region of the August 18, 1959 magnitude 7.3 Hebgen Lake earthquake. His presentations examined the effects of this major earthquake and discussed what has been learned about this region's seismicity, tectonics, and hazards during the last five decades.
 - The MBMG Ground Water Investigation Program and the Ground Water Work Group of the Montana Watershed Coordination Council co-sponsored a *Groundwater and Energy workshop* at Montana Tech on July 31, 2012. The workshop attracted more than 70 participants from Montana and surrounding states and concluded with a visit to Montana Tech's geothermal project site at the Orphan Boy mine.
 - The State Map Advisory Committee (11 representatives from the Montana University System, private industry, and state and federal agencies) met at the Montana Bureau of Mines and Geology on August 16, 2012 to discuss geologic map products and chart a five-year course for MBMG's USGS-funded geologic mapping program.
 - The Montana Bureau of Mines and Geology, and the Departments of Geological Engineering and Chemistry signed an agreement on August 14, 2012 to cooperatively purchase and share use of a Picarro Water Isotope Analyzer. The instrument will serve MBMG research needs for quick and cheap access to isotopic data but will also be accessible to Geological Engineering and Chemistry students interested in isotopic signatures in surface and groundwater. The instrument will be housed in MBMG laboratories in the Natural Resources Building.
 - On August 27, 2012 MBMG hydrogeologists Gary Icopini and Nick Tucci hosted a field trip focused on base flow and storm water/surface water Issues associated with the Butte Priority Soils Operable Unit in Butte, Montana. Attendees included employees of the Montana Department of Environmental Quality, the Montana Department of Justice, and the MBMG.
 - The Montana Bureau of Mines and Geology hosted a Data Preservation Technical Advisory committee meeting on August 29, 2012. The technical advisory committee includes representatives of local, state, federal, and private agencies interested in properly managing and disseminating historic mining property information. The committee is a requirement of a U.S. Geological Survey grant to MBMG that focuses on improved preservation of historic mining records.
 - John Metesh, who will become MBMG's next director and State Geologist on October 1, 2012 attended the annual American Association of State Geologists Washington DC Liaison meeting, September 8-14, 2012.
 - On October 1, 2012, the Montana Bureau of Mines and Geology will be under the leadership of Dr. John Metesh, who will move into the position of Director and State Geologist. Dr. Metesh has worked for the MBMG since 1989 and replaces Dr. Edmond Deal who is retiring after 14 years as Director.