January 2022 news releases

University of Montana–Missoula. Office of University Relations
SCHOOL OF LAW

UM Law School Project to Buoy Tribal Energy Independence

31 JANUARY 2022

COLLEGE OF EDUCATION

UM Brings Mental Health Support to Rural Montana Students

28 JANUARY 2022
COLLEGE OF HUMANITIES AND SCIENCES

UM Humanities Address Death, Dying and Grief in New Series
26 JANUARY 2022

COLLEGE OF FORESTRY AND CONSERVATION

UM Joins National Project to Support Climate Resilience in Indian Country
24 JANUARY 2022

COLLEGE OF THE ARTS AND MEDIA

UM Museum Acquires Major Western Art Collection
18 JANUARY 2022
UM’s Tribal Outreach Specialist Important Bridge for Native Students
14 JANUARY 2022

‘Life on the Edge’ Exhibition Begins National Tour in Missoula
13 JANUARY 2022

Winter Events Set to Welcome UM Students
12 JANUARY 2022
SCHOOL OF LAW

UM Law Ranks No. 5 Nationally for Clerkship Placements
07 JANUARY 2022

UNIVERSITY OF MONTANA

UM Announces Fall Semester Dean’s List, 4.0 List
06 JANUARY 2022

COLLEGE OF FORESTRY AND CONSERVATION

Study: Climate Change, Invasive Species Drive Native Trout Declines
03 JANUARY 2022
UM Law Professor Monte Mills is part of an effort to help Native Americans transition from fossil fuels to clean energy.

MISSOULA – Monte Mills, acting dean and
a professor at the University of Montana Blewett School of Law, is part of a team working to find out how transitioning from fossil fuels to clean energy will affect Native American tribes and their lands.

Funded by a nearly $500,000 grant from the Alfred P. Sloan Foundation, the project will help inform tribal and federal policymaking, with a specific focus on energy development decisions that boost economic development and emission-reduction goals.

The project team includes professors of law, public policy, geography, development and the environment from institutions around the country. Members are from UM, the University of Arizona, the University of North Texas at Dallas and the University of Michigan. Other collaborators are from Resources for the Future, a nonprofit research institution in Washington, D.C., with expertise in modeling energy development on public lands.

“They are all great thinkers,” Mills said. “I’m honored to be a part of a team that works together in an interdisciplinary fashion to bring this all together.”

Focusing on tribes in the San Juan basin and Bakken oil formation areas, the team will examine the effects public policies could have on future energy development on Native American lands.

Research will begin with extensive engagement with the relevant tribal communities to better understand their priorities, concerns and goals.

The team then will deploy a modeling tool to estimate the effects of an energy transition and
UM Law School Project to Buoy Tribal Energy Independence

corresponding reduction in oil and gas production on tribal lands. Using input from tribal leaders, they also will use geospatial modeling tools to understand the potential for renewable energy development on tribal lands, as well access the impacts of tribal, federal and state policies.

In the last leg of the project, the team will work with law students at member institutions to examine the legal and policy issues related to the energy transition on energy sovereignty and self-governance in select tribal communities. Mills will concentrate on the legal and policy analysis portion of the project.

Project funding includes support for Mills to have a student research assistant during the grant term.

“There will be opportunities for students to get involved with broader research questions and service work through the law school’s Margery Hunter Brown Indian Law Clinic,” said Mills. “Our students will get to think about how to put law and policy together with other research disciplines in service of tribal governance and decision-making.”

The team expects to produce papers, presentations, briefs and blogs for academics, tribal governments and communities, state and federal policymakers, and the public.

This project will develop new knowledge about how to leverage the clean energy transition to improve outcomes for tribal communities in the United States, Mills said. Native communities often experience higher energy prices and insecurity. Through direct and extensive engagement with tribes and research, the project will improve policies that concern potential future energy development on Native American lands in ways compatible with economic development and emissions reductions.

“Our focus is to help make a difference,” Mills said. “I’m just excited to be a part of it.”

For more information about the Sloan Foundation, visit https://sloan.org. Find out more about the Blewett School of Law at https://www.umt.edu/law.

###

**Contact:** Andi Armstrong, director of marketing and communications, UM Alexander Blewett III
School of Law, 406-243-6509, andrea.armstrong@umontana.edu.
To bring consistent mental health care directly to remote schoolrooms across the state, the University of Montana recently launched a program that marries the expertise of graduate students in counseling with expanding internet access in Montana.
UM Brings Mental Health Support to Rural Montana Students

MISSOULA – For rural Montana school kids, getting access to mental health care often involves long – and in winter months, harrowing – car rides to distant towns.

To bring consistent mental health care directly to remote schoolrooms across the state, the University of Montana recently launched a program that marries the expertise of graduate students in counseling with expanding internet access in Montana.

The Tele-Counseling Clinic is one of many programs offered by UM’s Safe Schools Center. The center, housed in the Phyllis J. Washington College of Education, provides individualized school safety training programs, professional development and technical support.

Kristi Borge, who teaches at the one-room school house in Polaris, said UM’s tele-counseling program has been a big help for her students.

“Big schools have counselors who can walk down the hall and help, and we don’t have that resource,” said Kristi Borge, the 2021 Montana Teacher-of-the-Year who teaches at the one-room school house in Polaris, where 11 students grade first to eighth attend classes.

“Without this program, kids would have to go to Dillon or Bozeman for counseling. This has definitely been great for our students.”

While the program has come to the forefront during the COVID-19 pandemic, Safe Schools Center Director Emily Sallee said its development has been in the works for some time.

“Tele-mental health is quite nuanced,” said Sallee, an assistant professor in UM’s Department of Counseling. “We had three counseling faculty undergo intensive training in tele-mental health, then created a training program for graduate students before even starting to work with school administrators, teachers and parents who wanted to participate in the program.”
The program kicked off in fall 2020 with two schools and 12 students from kindergarten to 11th grade. This year, program staff are working with three schools and 10 students.

Jess Conner, a licensed school counselor at Missoula’s C.S. Porter Middle School, provided tele-health counseling to rural students while finishing her degree. She met one to two times a week with each student, depending on the situation, and credits today’s kids’ comfort with technology for making the sessions seamless despite the miles.

“The students I worked with all experience different issues, such as anxiety, peer conflicts, hyperactivity, emotional regulation, eating disorders, etc.,” she said. “They are all very good with their iPads and with technology. I was able to bring in specialists as needed and work with their parents on things they could do at home.”

Parent or guardian participation is a key component of the program, said Nancy Berg, assistant director of the Montana Safe Schools Center – with baseline assessments and follow-ups part of student therapy.

“We are considered a school service, so we mirror as much as possible what in-person counseling would look like,” Berg said.

Kara Morgan, the school counselor for the PK-12 Alberton School, said staff wear many hats, and access to counseling services for students needing extra attention has been extremely helpful.

Both Alberton and Polaris were part of the pilot year of the program, providing valuable feedback to the Center.

“This second year, our kids were very familiar with the program, were interested in what was available or wanted to return to sessions,” said Morgan, who shared that the pandemic has created turmoil for many students academically, in addition to the traditional hurdles such as anxiety that can come with growing up.

Mental health, requires sensitivity, and those participating in the program acknowledge maintaining privacy in small schools requires extra diligence.
While providing counselling services in a small one-room school house has its challenges, Polaris has created a safe and private area for students to talk to their counselors. Students know that their peers are getting support.

“They have an idea and we do try to keep it private,” Borge said, “but also we talk in general about mental health because that’s how we get over the stigma.”

Polaris teacher’s assistant and parent Sarah Miller said being proactive is critical for the healthy development of children facing mental health difficulties, and the availability of this new care for kids in rural areas is “huge.” Her own children have accessed UM’s Tele-Counseling Clinic services.

“Offering our kids a safe place to talk about their frustrations and helping them find different ways to look at issues is so important,” she said. “I want the kids in our school to learn tools now for dealing with anxiety or whatever they are facing, so they can develop healthy habits for the future.”

For more information about participating in UM’s Tele-Counseling Clinic services, school administrators are encouraged to contact Emily Sallee at 406-243-5273 or emily.sallee@umontana.edu or Nancy Berg at 406-243-4973 or nancy.berg@umontana.edu.

###

Contact: Dave Kuntz, UM director of strategic communications, 406-243-5659, dave.kuntz@umontana.edu
UM Brings Mental Health Support to Rural Montana Students
The University of Montana Humanities Institute will present a free lecture series titled “Re-imagining Death, Dying and Grief” as part of public programming in the humanities.
MISSOULA – Ashby Kinch, a University of Montana professor of English, has spent his career studying the 14th and 15th centuries. Despite broad social advances, there’s still something citizens of the Middle Ages did better than we do now: talk about and process death, dying and grief.

“During the Black Plague, communities had an intense cultural experience of observing death at close hand,” Kinch said. “But in the face of so much death and loss, we don’t see despair; we see a lot of positive and affirmative writing about why life is important, why communities are important. The works from those experiences provided a richly articulated death culture and practices prior to modernization.”

Kinch said that despite being surrounded by death, famine and warfare, many in the Middle Ages turned loss into works of beauty – either through literature, painting or poetry that guided people through the experience. As the world enters its third year in the COVID-19 pandemic, with global deaths estimated near 5 million and over 850,000 deaths in the U.S., there is much we can learn from our ancestors, Kinch said. Death he adds, should be seen beyond a legal or medical context.

“Our cultures and our values about death and how we behave around loss are mismatched,” Kinch said. “We need richer, longer, sustained conversations about how we prepare for death.”

Creating space for conversations on themes of dying, loss and grief is the subject of a new free lecture series from UM’s Humanities Institute titled “Re-Imagining Death, Dying and Grief.” The short lectures at the Missoula Public Library are designed to generate discussion and reflection.
UM Humanities Address Death, Dying and Grief in New Series

on the diverse ways global cultures have addressed death and grief.

UM faculty members will share their expertise across a range of disciplines in poetry, literature, Irish culture, short stories and Indigenous studies. The lectures will address everything from death rituals and beliefs in Hinduism to Irish lamentations on loss, death experiences of past time periods, shifting attitudes about death in cultural practices and death practices like funerals, cremation and end-of-life experiences.

The lecture series is sponsored by a half-a-million dollar grant from the National Endowment of the Humanities for public programming in the humanities that “are an essential component of economic and civic life in the United States.” In October, UM was awarded the maximum level of grant funding for one year to support events, classes and scholarship in history, literature, anthropology and Native American Studies in UM’s College of Humanities and Sciences.

“The more we’ve advanced as a society, in many ways, the further we’ve moved away from how to deal as a community with death and loss,” Kinch said. “We have these disoriented, repressed conversations about loss and what it means to be a good friend or even a good citizen in times of death.” Kinch hopes the lecture series provides a “richer, broader discussion about loss” through conversation led by humanists who present an array of ideas to explore the journey of death, including history, philosophy and an exploration of world cultures.

Sarah Velk, programming librarian at the Missoula Public Library, said the first lecture in the series, presented by Kinch, drew 37 attendees.

“We value this series, not only because it’s my perception that our community is ready to discuss and engage with a difficult topic, but also because the library’s mission includes providing programs that have cultural and educational relevance to the community.”

That’s where the role of humanities in the public space comes in, said Gillian Glaes, director of UM’s Humanities Institute.

“This lecture series helps us to process the grief, anxiety and sadness that we’ve experienced over the past few years in the midst of the pandemic while reminding us that many societies have, historically, dealt with egregious losses,” Glaes said. “We can learn so much from their experiences while confronting our own. And that ability to provide perspective is one of the most powerful contributions made by the humanities.”
“Humans crave meaning, and the humanities are meaning-making machines,” Kinch said. “They allow us to generate ideas, feelings and sensations to explore this field of death together.”

The lectures are free and open to the public and located in the Cooper Room on the fourth floor of the Missoula Public Library. The schedule of events is:

- **Monday, Feb. 7**, 5:30 p.m. “Death, Rebirth and Endless Cycles in Hinduism” presented by Dr. Ruth Vanita.

- **Monday, Feb. 28**, 5:30 p.m. “Grief and Writing” presented by Dr. Amy Ratto-Parks and Dr. Heather Cahoon.

- **Monday, March 7**, 5:30 p.m. “Irish Traditions of Lament” presented by Dr. Katie Kane and Dr. Bernadette Sweeney.

- **Monday, March 14**, 5:30 p.m. “Manifestations and Performance of Grief in Irish Culture” presented by Dr. Katie Kane and Dr. Bernadette Sweeney.

- **Monday, April 18**, 5:30 p.m. “Indigenous Trickster Tropes on Death and Demise” presented by Dr. Kate Shanley.

- **Monday, May 9**, 5:30 p.m. “Orphans, Actors and Ghosts: Exiled Writers on Loss and Life” presented by Dr. Erin Saldin.

For a full list of public humanities programming visit [hs.umt.edu/hi](http://hs.umt.edu/hi) and the Missoula Public Library. Masks are required at the lectures.

###

**Contact:** Ashby Kinch, interim dean, UM Graduate School, professor of English, 406-243-6695, ashby.kinch@mso.umt.edu; Gillian Glaes, director, UM Humanities Institute, 406-546-8966, gillian.glaes@umont.edu.
UM Humanities Address Death, Dying and Grief in New Series
UM is partnering in a new program that will provide science-based climate information and services to Native American ranchers and farmers in the Mission Valley and throughout the Intermountain West. (Photo by Maureen McCarthy)
MISSOULA – The University of Montana is partnering in a new program that provides science-based climate information and services to Native American ranchers and farmers in the Intermountain West.

The program, funded with a $1.5 million grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture, will support and strengthen the role of USDA Climate Hubs in Indian Country. These hubs work across 10 U.S. regions to support agricultural producers and professionals by providing region-specific information about climate change and climate adaptation strategies.

Virgil Dupuis, extension director at Salish Kootenai College and member of the Native Climate Advisory Group, inspects invasive species in Kicking Horse Reservoir. (Photo by Maureen McCarthy)

Titled “Native Climate: Strengthening the role of Climate Hubs in Indian Country,” the program will expand climate services to tribal extension agents, agricultural producers and youth educators. A key component will be the hiring of three Native Climate Fellows – one will be stationed at UM’s Montana Climate Office – who will work as liaisons between the Southwest and Northern Plains Climate Hubs and regional tribal nations.

“This project increases equity in representation of Native communities in climate data monitoring and sharing and will help develop protocols to ensure climate data sovereignty protections for tribal nations,” said Kyle Bocinsky, director of climate extension at the Montana Climate Office and Native Climate project co-director. “The Montana Climate Office is honored to have been chosen for this partnership, which will expand the impact of the many tools and services provided by our office.”
UM Associate Professor Kelsey Jensco, director of the Montana Climate Office and state of Montana’s climatologist, said the climate extension aspect of the program is particularly exciting.

“We have been building the capacity and personnel to work with tribal nations the way we have known we need too, and the Native Climate project will build that capacity,” said Jensco. “In the end, all of the data and numbers are meaningless unless we interpret them and get them to the people who will use them.”

In addition to UM, the project team includes researchers, tribal extension educators and climate leaders from the Desert Research Institute, which leads the project, as well as the University of Nevada, Reno, and the University of Arizona.

Native Climate will address long-standing issues related to climate injustice in Indian Country through culturally appropriate information sharing said the DRI’s Maureen McCarthy, Native Climate program director.

“This soil moisture and meteorological monitoring station, part of the Montana Climate Office’s Montana Mesonet network, is near Crow Agency.

“There are huge inequities across the U.S. in providing climate services and resources to tribes,” she said. “Many of these communities are incredibly resilient and forward-thinking in terms of finding ways to adapt to this rapidly warming world, and their knowledge of the landscape pre-dates modern science. This project is an amazing opportunity to build connections and sustainable, trusted relationships that support information sharing among all the participating groups.”
Caiti Steele, coordinator for the Southwest Climate Hub, said the new project will help increase their engagement with tribal representatives on the Hub’s programs, such as their drought outreach and climate adaptation workshops.

“It will be very valuable to learn from Native communities if the information we produce is useful,” she said, “and to learn how we at the Hub can improve our support of climate adaptation in Indian Country.”

Native Climate also will create a new student internship program for Native Climate Reporters at DRI, which will support three or more Native students a year studying communications, journalism, agriculture or STEM. Other components of the project include a “Native Climate Toolkit” – a web-based interactive resource clearinghouse – and impact reporting and alert tools. A Native Climate Advisory Group will help the team engage tribes in the region, leverage resources from partner organizations and conduct culturally respectful project evaluation.

Bocinsky said the search for a Fellow to work out of the Montana Climate Office will begin this spring.

###

Contact: Dave Kuntz, UM strategic communications director, 406-243-5659, dave.kuntz@umontana.edu.
UM Joins National Project to Support Climate Resilience in Indian Country
Nick Eggenhoffer, “Cowboy Surrendering,” no date, dry brush, MMAC: Stan and Donna Goodbar Collection. (Photo by Eileen Rafferty)

MISSOULA – The University of
Montana recently was gifted a significant art collection that reveals how artists understood, imagined and redefined the West across the 20th century.

UM’s Montana Museum of Art and Culture acquired the collection in 2021 from Stan and Donna Goodbar of Cheyenne, Wyoming. The donation of more than 125 works deepens the museum’s holdings in Western art during the last century.

“The exhibition features artists who made a living primarily as illustrators, both shaping and reinforcing quintessential myths about the West’s important archetypes, its settlers, cowboys and Indigenous inhabitants,” said Rafael Chacón, MMAC director and a professor of art history and criticism.

The works will be displayed in an exhibit titled “Imagining the West: Selections from the Stan and Donna Goodbar Collection of Western Art” from Feb. 4 to March 26 in the Meloy Gallery of UM’s Performing Arts and Radio/Television Center. Exhibit programming will include:

- A free, socially distanced opening reception from 5:30 to 7:30 p.m. Friday, Feb. 4.
- A joint lecture with MMAC Curator Anna Strankman and artist Dagny Walton on the state of Western art in America at 6:30 p.m. Tuesday, Feb. 22, in the Masquer Theatre of UM’s PAR/TV Center. The event will include a mini-concert with selections of American music by Professor Adam Collin’s student cellists from 6 to 6:30 p.m.

The new collection highlights artists who followed Charles M. Russell and Frederick
Remington’s footsteps in the illustrative traditions of Western art and includes celebrated Montana artists such as John Clarke, Jo De Yong, Elizabeth Lochrie, Ace Powell and O.C. Seltzer. The collection also contains the works of California artists Edward Borein, Will James and Olaf Wieghorst and modernists Frances Senska and Peter Voulkos.

“These artists diffused notions of the West by way of popular prints, cartoons and graphic illustrations – especially for pulp fiction and magazines – and small-scale bronze sculptures,” Chacón said.

Stan Goodbar was born in Great Falls in 1929 and raised in Chester, Montana. He briefly attended college in Great Falls before serving in the U.S. Navy for four years. Returning from Korea in 1952, Goodbar married Donna Jeppesen, who attended UM and received her teaching certification from Eastern Montana College in Billings. Their marriage lasted close to 70 years, until Donna passed away early in 2021.

After completing his military service, Stan also attended UM, earning a business degree in 1956. The Goodbars lived in Chester, Missoula, Helena, Denver, Billings and finally Cheyenne. They were active in civic organizations in all three states.

The Goodbars began collecting Western art and artifacts while Stan worked as district manager for the telephone company in Billings. Gallery owner and philanthropist Dale Hawkins introduced them to all genres of Western art. While living in Helena, the Goodbars also befriended Bob Morgan, an artist and director/curator at the Montana Historical Society, who connected them to other artists. The Goodbars formed lifelong friendships with beloved artists like Nick Eggenhofer.

“Not long after Donna’s passing, Stan generously gifted their collection to the MMAC and UM,” Chacón said.

###

Contact: H. Rafael Chacón, director, UM Montana Museum of Art and Culture, 406-243-2019, hrfael.chacon@umontana.edu.
UM’s Tribal Outreach Specialist Important Bridge for Native Students

14 JANUARY 2022
MISSOULA – As the University of Montana’s tribal outreach specialist, Brad Hall plays a pivotal role in helping UM create and sustain meaningful relationships with tribal communities.

Coming from the Blackfeet Nation, he serves as a UM liaison, resource and support to Native students throughout the region. On campus he adds to the strength of the existing tribal community conscience, lending insights and perspectives to everything from course content to Native-focused programming.

The job is nuanced, challenging and deeply rewarding, Hall said and has him shuttling around the state meeting with prospective students, hosting events and guests in UM’s Payne Family Native American Center and consulting with leadership and faculty on matters pertaining to Native students and their education.

“I feel like I’ve been preparing my entire career to fulfill my role here," he said of his job, the first he has held outside of Native organizations.

President Seth Bodnar created Hall’s position at the recommendation of Montana’s tribal college presidents during their annual meeting at UM. The on-campus President’s Native American Advisory Council then crafted the position as a key component of UM’s focus on student success, and a number of tribal college presidents participated in interviewing candidates. Hall is a member of the President’s Office staff and reports to Chief of Staff Kelly Webster.
“Brad plays such an important role in not just recruiting Native students to UM but also in being a champion of their success,” Bodnar said. “Already, he has helped UM become a community more rigorously committed to diversity, equity and inclusion on campus and throughout the state.”

Raised outside of Browning on his family’s ranch, Hall spent his early career committed to improving education systems on the Blackfeet Indian Reservation. He served as a social studies teacher and principal for the Heart Butte School and in an administrative position at Blackfeet Community College in Browning until he accepted his current role at UM in October 2019.

Along the way he earned a master’s degree in education and doctorate in educational leadership from Montana State University while expanding his outreach to other tribal communities through presentations and publications involving research and culturally based teaching approaches in Indian Country.

“Higher education has done it wrong for a long time when it comes to tribes and Native students,” Hall said. “There is still a lot of distrust, and it will take time to build better relationships that are still fragile.”

Hall talks often about teamwork and relationships when discussing his responsibilities at UM, which have grown since his arrival in 2019 to include an affiliation as a Native student support advocate in UM’s Alexander Blewett III School of Law.

“I’ve always been drawn to challenging roles that require you to build relationships and collaboration,” Hall said. “I like to say that my doctorate gave me the floor, but I always need to bring other people to the stage.”

Hall strives to apply the values of Blackfeet culture – honesty, compassion, respect, generosity, humility and courage – to his personal and professional life.

“It’s so important to be humble and teachable,” he said. “I’d much rather talk about our student successes than my own.”

Political science freshman O’Shay Birdinground, an enrolled member of the Crow Tribe from Billings, has worked with Hall on a number of Native initiatives on campus and in Montana. He credits Hall with helping him prepare public comments for the November 2021 Board of
Regents meeting, when Birdinground offered suggestions for correcting blood quantum and financial needs requirements for tuition assistance under the state’s American Indian Tuition Waver.

“Brad’s help was monumental,” said Birdinground, who is a senator for the Associated Students of UM. “Without his support, I probably wouldn’t have given my comments and it wouldn't have gotten the traction that it did.”

Heather Cahoon, assistant professor in the Department of Native American Studies and director of the American Indian Governance and Policy Institute at UM, said Hall has been an enthusiastic and knowledgeable resource for a recent effort to include tribal college students in the policy institute’s research projects.

“We met for a cup of coffee and Brad already had ideas,” said Cahoon, a member of the Confederated Salish and Kootenai Tribes. “Brad brings this level of energy and engagement to all aspects of his job where he really rallies people and the campus to help Native students feel at home here.”

In his short tenure at UM, Hall said he has seen “huge headway” being made on campus toward providing Native students – and students of all backgrounds – with a safe and nurturing learning environment. There is still a long way to go, he said, but he is encouraged by growing awareness and support for students who benefit from his work and mission.

“The number one thing students need is community, and it’s in having shared values that they thrive,” he said. “It’s important to tell Native students they belong here. I tell them that often.”

###

Contact: Dave Kuntz, UM strategic communications director, 406-243-5659, dave.kuntz@umontana.edu.
MISSOULA – Discover new environments on Earth and in space at a new visiting exhibition.
opening at specrUM Discovery Area in the Missoula Public Library on Saturday, Jan. 22.

“Life on the Edge” uses Earth’s extremophiles – organisms that thrive in extreme conditions – as a means to explore the possibilities for life in our solar system and beyond.

The exhibition was created through a $1.25 million, five-year NASA grant led by Cornell University’s Sciencenter in partnership with the University of Montana’s specrUM and the Harvard College Observatory. SpecrUM and its community advisory group, SciNation on the Flathead Reservation, contributed and advised on the design of the exhibition. SpecrUM is the first stop on the exhibition’s national tour.

In “Life on the Edge,” visitors will discover that life is hidden in plain sight by exploring a colorful microbial colony, learning about the importance of our missions to Mars, investigating rover tests in the Atacama Desert and using spectroscopy to detect what light reveals in faraway places.

Exhibition highlights include:

- **Hidden in Plain Sight:** Understand how microbes contribute to nutrient cycling by using a movable video microscope to investigate a bacterial colony in a Winogradsky column.

- **Discovering Biosignatures:** Code a rover, experience what it is like to plan a route across the Atacama Desert and scan the environment for signs of life like scientists did in preparation for the Perseverance mission to Mars.

- **Light Reveals:** Understand how scientists use the transit method to learn about exoplanets by setting a kinetic model of a solar system into motion and watching while a digital display shows dips of light as exoplanets pass in front of the light source.

- **Adapted for Extremes:** Explore realistic models of hydrothermal vent communities and discover the diversity of creatures living in the deep sea and how they survive.

The public can visit “Life on the Edge” at specrUM through April 20. K-12 school groups from the Missoula region and the Flathead Reservation also will have the opportunity to book field trips to the special exhibition, with need-based scholarships sponsored by First Security Bank.

http://www.spectrum.umt.edu, where educators can book field trips. SpectrUM's main location at the new Missoula Public Library is open from 10 a.m. to 6 p.m. Tuesday through Saturday. Admission is free.

Inspiring a culture of learning and discovery for all, spectrUM Discovery Area is UM's hands-on science center. Since 2006, spectrUM has served over 200,000 visitors annually in Missoula and across Montana. SpectrUM is part of UM’s Broader Impacts Group, which works to engage the public, including K-12 students, with UM research and scholarship.

###

Contact: Jessie Herbert-Meny, director, spectrUM Discovery Area, jessie.herbert@umontana.edu.
"Life on the Edge" Exhibition Begins National Tour in Missoula
UM students can expect a host of winter activities to start the semester.

Two students cross-country ski at the UM Golf Course.
MISSOULA – As University of Montana students return for spring semester, campus is blanketed in deep winter – but that doesn’t mean Grizzlies hibernate. The first day of UM’s spring semester begins Tuesday, Jan. 18, and a host of winter activities will welcome students.

Events such as ice skating, skiing and fire pit gatherings will celebrate the best of the season and foster community among students. The activities are organized by UM staff within the University Center, Facilities Services and the Office of New Student Success.

“As we begin the third year of the pandemic, just as another variant is gripping the nation, UM is thinking about safe ways to foster community and engagement for our students,” said Sarah Swager, UM vice provost for student success. “Winter is a beautiful time on campus, with lots of ways for students recreate, meet friends and enjoy the beginning of the semester together.”

UM’s iconic ice-skating rink returns again to the Oval this month. Students and the public are welcome to skate on the self-monitored, pond-style campus rink. UM’s Gaming Den rents skates for $5 on a first-come, first-serve basis. Students and community members also are welcome to reserve the ice rink for private use by calling UM Events and Conference Services at 406-243-4119. To warm up after a skate, UM hosts several propane fire pits with Adirondack chairs, which also are available for group reservations. The fire pits will be on for students during designated times during the semester.

UM’s Campus Recreation and Outdoor Program offers a several trips and skill classes that include Nordic skiing, avalanche training, ski and snowboard maintenance, an overnight trip in Glacier National Park, and backpacking and mountaineering instruction in advance of spring
break. The UM Golf Course is free and open to the public and is groomed for classic and skate skiing, and Outdoor Recreation rents winter gear to students and community members for a fee.

UM also is within driving distance to several alpine ski resorts, including 14 miles from Montana Snowbowl, which offers a shuttle bus on weekends in front of UM’s Campus Rec Center for a $3 fee. Additionally, UM alumni-owned Discovery Ski Area is 90 miles from Missoula near Phillipsburg, Lost Trail Powder Mountain is 94 miles from Missoula near Sula, and Lookout Pass is 104 miles from Missoula near the Montana-Idaho border. UM Recreation offers discount tickets for Lookout Pass and Lost Trail Powder Mountain.

UM’s new Griz Hockey team also continues their regular season through February with $5 tickets for students.

Next month, UM will host WinterFest on the Oval Tuesday, Feb. 1, during the third week of classes to kick off the spring 2022 semester with winter-themed student engagement. To learn more about this event and other student events visit Griz Hub.

Contact: Karen Schlatter, University Center marketing director, 406-243-5555, karen.schlatter@mso.umt.edu.
UM Law Ranks No. 5 Nationally for Clerkship Placements

Reema Najjar, a 2021 UM law graduate, now clerks for Judge Ray Dayton in the 3rd Judicial District Court in Montana.

MISSOULA – With 30.4% of its 2020 graduates placed in coveted judicial clerkships, the
University of Montana's Alexander Blewett III School of Law ranks No. 5 nationally on a list titled The Princeton Review’s 2022 Best Law Schools for State and Local Clerkships.

A leading tutoring, test prep and college admission services company, The Princeton Review annually reports 14 rankings. Each names the top 10 law schools in a particular category, covering topics it believes prospective applicants might want to know about during a campus visit.

“I’m often asked by students about why our school has such high clerkship rates, and I typically respond, ‘because we have the best students,’” said Katy Stack, director of career development for the Blewett School of Law. “While it also doesn’t hurt that we are the only law school in Montana, I believe that the courts would not continue to hire our students if they didn’t do a great job.”

Montana's judges have clerkship applicants from all over the country and from some of the most highly ranked law schools, but they consistently select UM students out of those strong applicant pools.

“Our students work hard, and they come out of law school with a solid combination of practical and theoretical knowledge that allows them to assist judges in their important and difficult work,” Stack said.

Stack herself clerked for the federal courts for four years after graduating from law school and recalled that attorneys who had clerked would always tell her how much they enjoyed it.

“Now I get to help our students have that experience,” she said.

Reema Najjar, a 2021 Blewett School of Law graduate now clerks for Judge Ray Dayton in the 3rd Judicial District Court in Montana, covering three counties, the Montana State Prison and the Montana State Hospital.

“I feel like I was prepped for this job,” said Najjar. “There was a lot I had to learn, but for the most part I had that baseline to be resourceful and find the answers I needed.

“Research and writing are essential, and our professors set really high standards,” she said. “I think that makes such a difference when you are starting to write for the court. Clinic was also
great, and there were classes that zoomed in on certain aspects of trial, litigation or transactions. I see in context how applicable it was.”

While putting their skills to practice, clerks also observe attorneys in action in many different practice areas, develop a better sense of what attorneys do on a day-to-day basis and put more time and consideration into the type of law they want to practice. Perhaps most importantly, the judge they work for becomes a mentor who they can turn to for advice for years after leaving the judge’s chambers.

“Being able to communicate with a judge all day on legal questions, on strategy and on issues and theory of how something is playing out or how a case is developing is a big benefit,” Najjar said. “That gives me new perspective that I don’t have as a new grad, and Judge Dayton has a wealth of knowledge to share.”

To find out more about the Blewett School of Law, visit https://www.umt.edu/law. For more information about The Princeton Review, go to https://www.princetonreview.com/.

###

**Contact:** Andi Armstrong, director of marketing and communications, UM Alexander Blewett III School of Law, 406-243-6509, andrea.armstrong@umontana.edu.
UM Law Ranks No. 5 Nationally for Clerkship Placements
MISSOULA – At the University of Montana, nearly 2,600 undergraduate students made the fall semester 2021 Dean’s List or President’s 4.0 List. To qualify, students must be undergraduates, earn a semester GPA of 3.5 or higher and receive grades of A or B in at least nine credits. Students who receive any grade of C+ or below or no credit (NC/NCR) in a course are not eligible.
The students on the linked lists below made UM’s fall semester 2021 Dean’s List or the President’s 4.0 List. Double asterisks after a name indicate the student earned a 4.0 GPA. A single asterisk indicates a GPA greater than 3.5 but less than 4.0. This information is grouped by hometowns.

View the Dean’s List and President’s 4.0 List for Montana students.

View the Dean’s List and President's 4.0 List for out-of-state students.

View a full alphabetical list of all students who made the Dean's List and President’s 4.0 List.

All lists also are available on the UM Dean’s List and Degree Candidates webpage.

Contact: UM Registrar’s Office, grading@umontana.edu.

Note: The University is prohibited from publishing information about students who signed the Student Request to Restrict Release of Directory Information form through the Registrar’s Office. If students are not listed with a particular city or town, they should check other towns they may have listed as an address. If students are not listed and they believe they should be, email the Registrar’s Office at grading@umontana.edu.
UM Announces Fall Semester Dean’s List, 4.0 List
Study: Climate Change, Invasive Species Drive Native Trout Declines

Westslope cutthroat trout and a bull trout swim in the Flathead River system. (Courtesy of Jonny Armstrong, USGS)
MISSOULA – In a new study published in Science Advances, University of Montana researchers found that climate change drives native trout declines by reducing stream habitat and facilitating the expansion of invasive trout species.

“This study had three main questions: How have the distributions of native and invasive trout shifted in Montana over the last 30 years, how will they change in the future, and what factors are causing those changes?” said Donovan Bell, the study’s lead author and a doctoral candidate in UM’s Wildlife Biology Program.

To answer those questions, scientists from UM, the U.S. Geological Survey and Montana Fish, Wildlife & Parks quantified the impacts of climate change on the distributions of five trout species (native westslope cutthroat trout and bull trout and invasive brook trout, brown trout and rainbow trout) in the northern Rocky Mountains. They used an expansive long-term dataset collected and maintained by Montana FWP, analyzing close to 22,000 data points from electrofishing surveys in Montana’s streams and rivers over the past 30 years.

The researchers found native bull trout and westslope cutthroat trout occupancy – defined as the amount of stream where a species is present – declined by 18% and 6%, respectively, between 1993 and 2018 and are predicted to decrease by an additional 39% and 16% by 2080. Although invasive brook trout also were expected to decline, invasive brown and rainbow trout have expanded their range due to rising water temperatures and appear poised to prosper.
during future climate change.

The culprit for declines of both native trout species is likely climate change, researchers found, but the specific mechanisms of the declines varied by species.

Bull trout, a threatened species under the Endangered Species Act, require cold streams with adequate flow. But warmer water temperatures and lower summer water levels – both driven by climate change – have degraded stream habitat and likely caused declines of bull trout. Meanwhile, westslope cutthroat trout were strongly limited by the presence of invasive trout species, including brook trout that can outcompete native trout, and rainbow trout that readily hybridize with westslope cutthroat trout. The threat from invasive rainbow trout is particularly concerning as their range is expanding due to climatic warming.

“Our two native trout species in Montana will decline in the future unless appropriate conservation action is taken,” Bell said. “Our results suggest that tailoring conservation strategies to specific species and specific climate-change threats is important for native fish conservation.”

For example, the conservation of bull trout in streams and rivers may be better aimed at protecting, reconnecting and restoring critical cold-water habitat. On the other hand, suppression of invasive trout species likely is more effective for the conservation of westslope cutthroat trout.

“Globally, climate-induced changes to aquatic habitats are predicted to threaten at least one-third of freshwater fishes, and some invasive species could take advantage of such changes,” said Clint Muhlfeld, a USGS scientist and study co-author. “These scenarios seem to be playing out in our backyard with native and invasive trout.”

The study also highlights the importance of using and maintaining long-term datasets covering large regions to shed light on the complex ways climate and invasive species work in concert to affect native species.

“It’s exciting to have the opportunity to use data meticulously collected over decades in Montana to convincingly answer complex questions like these,” said David Schmetterling, fisheries research coordinator for Montana FWP.
Andrew Whiteley, a study co-author and UM associate professor, said Montana already has lost populations of cold-adapted native fish species, and this likely will continue as climate change progresses over this century.

“This is particularly troubling in a state where cold-water fisheries now contribute nearly $650 million a year to our economy,” said Whiteley, who studies fisheries and conservation genetics. “But all is not lost for these economically, ecologically and culturally important species as long as appropriate conservation action is taken.”

UM study co-authors include Bell, Paul Lukacs and Whiteley from the University’s W.A. Franke College of Forestry and Conservation and Diane Whited from UM’s Flathead Lake Biological Station. USGS co-authors include Muhlfeld, Timothy Cline and Robert Al-Chokhachy. Montana FWP authors include Ryan Kovach and Schmetterling.

The study is online at https://www.science.org/doi/10.1126/sciadv.abj5471.

###

**Contact:** Donovan Bell, UM fish and wildlife biology doctoral candidate, 406-243-5521, donovan.bell@umconnect.umt.edu.
Study: Climate Change, Invasive Species Drive Native Trout Declines