Greetings From Dean Comer

Greetings!

In the last year students in the College of Arts and Sciences had the opportunity to engage in educational experiences extending beyond the classroom. Roughly 380 students completed internships, about 125 students went international for study abroad courses, and well over 100 students were involved in the UM Conference on Undergraduate research.

In this winter 2012 Newsletter you will find stories profiling research, recent publications and honors and achievements by our faculty, staff, and students.

The College is working to increase its presence in cities across the country. This semester we visited with alumni and friends of CAS in Chicago, Minneapolis, and Washington D.C. My hope is to visit several different cities each semester, reconnecting with friends and sharing the vision of the College. Please visit our web page www.cas.umt.edu or join us on Facebook (College of Arts and Sciences, University of Montana) to find out where we are headed next. Stay tuned for a visit in a city near you!

With the generous support of our alumni and friends we continue to enhance the educational experiences of our students. Thank you for remaining connected to the College.

Cheers,
Chris Comer
Research, Paul Weingarden: Biology

Paul Weingarden is a senior in Biology who plans to graduate this spring (2012). Paul is a member of the Emlen lab, where his current research has him investigating sensory structures and topography along the horns of rhinoceros beetles (particularly Trypoxylus dichotomus). Professor Doug Emlen says the “research in my lab combines the tools and perspectives of behavioral ecology, quantitative genetics, evolutionary biology, phylogenetics, and developmental biology to study beetle horn evolution.” Paul uses a scanning electron microscope (a microscope that gives really high resolution images of microscopic things) to survey the horns. He explains, “It’s really interesting as there isn’t much literature on what’s on the horns of these beetles.”

Paul’s advice to all undergraduates at UM – especially those interested in biology - is, “look into the research on campus and try to get involved. Even if it’s just volunteer work it’s totally worth it. I found it really let me discover which aspects of biology I enjoy more than others, and the experience helped me figure out what I want to do with my degree and how to pursue my interests even further.”

Paul plans to take some time off from academia after graduation to travel. Eventually he would like to return to the idea that communication transcends language barriers,”yes” to the value of human-to-human interaction, and “yes” to another sugar cube in my tea.

Fulbright Scholar, M Jackson: Environmental Studies

I am currently a United States Fulbright Scholar to Samsun, Turkey. I graduated from the University of Montana in May 2011 with a Masters of Science in Environmental Studies.

I applied for a U.S. Fulbright grant because this scholarship represents one of the best pathways for understanding today’s global conversations. Senator Fulbright said “There is an inevitable divergence between the world as it is and the world as men perceive it.” I agree with this. As a returned Peace Corps Volunteer from Zambia, I understand exactly how important it is to see a country from the ground. Previously, I had no concept of what life was like in the Middle East. Living in Turkey through this Fulbright, I am learning daily.

I wake around 5:00am each morning to the Islamic call to prayer echoing in my apartment. The sound rousts the city of Samsun before rolling out over the Black Sea. Some days I teach at Öndökgüz Mayis Üniveritesi, others I hop onto a bus and travel, seeing such places as the UNESCO World Heritage Site Nemrut Dağı, or the old Armenian capital of Ani in far eastern Turkey.

Whether I am buying pomegranates from the local fruit stall, practicing my Turkish, teaching students about climate change, participating at the local mountaineering club, tripping for the millionth time over the piles of shoes in every doorway, or finding the time to have another cup of tea, here I am always saying “yes.” “Yes” to the continual hospitality, “yes” to the adventure of being a woman in a predominantly Muslim country, “yes” to the idea that communication transcends
Study Abroad, Aaron Jungenitsch: German & History

As a recent German and history graduate of the University of Montana, I count my faculty-led study abroad semester in the spring of 2009 as a formative experience in my education. I began taking German courses my first semester with no intention of majoring in the field. However, after I applied for the Modern and Classical Languages and Literatures (MCLL) study abroad program and traveled to Germany and Austria for a semester with a German faculty member, Professor Liz Ametsbichler, both my education and career goals underwent considerable change. I had never been abroad, and the program offered a guided, inexpensive way to experience Europe for two and a half months while still earning credits. I applied with the hope of seeing Europe. What I received was much more.

During the first two weeks of the trip, I found myself in Missoula’s sister city, Neckargemünd, Germany. Along with nearby Heidelberg, this small German town introduced me to the storied pasts of even the most seemingly commonplace locales of central Europe. Crumbling fortresses and centuries-old structures dotted the landscape, each with their own tales to tell. After acclimating to Europe in small-town Germany, my classmates and I traveled to Vienna, Austria for a two month sojourn amidst the culture and history of Austria and the Habsburg Empire. There we continued the courses offered as part of the program, including German and Austrian theater, German and Austrian culture, and German conversation. For the theater course we read plays and attended stage productions. This allowed me to simultaneously enhance my grasp of German language and begin to explore the literary traditions of German-speaking Europe. Our Austrian culture instructor, Bernd Zimmerman, acquainted us with Austria’s history, taking us on walks through the city to illustrate how art and architecture reflected the numerous historical periods comprising Austria’s cultural development. The opportunity to examine landmarks such as St. Stephen’s Cathedral after reading about them allowed me to gain a deeper understanding and firsthand knowledge of what nebulous academic terms such as Gothic and Baroque truly mean.

In addition to instruction in German language and conversation, we also embarked on our own explorations of Austrian cultural topics we found intriguing. The art, architecture, and historical artifacts of Austria-Hungary surrounding me piqued my interest in the dissolution of that bygone empire. The sense of place I developed for Vienna in just two months allowed me to establish a closer connection to the history I studied, and it led me to shift my undergraduate focus to German-language literature and central European history.

My experiences in Vienna played a central role in my decision to pursue a Ph.D. in history and to study the Habsburg Empire. Beyond influencing my education and career goals, the MCLL study abroad program facilitated experience-based education. By placing myself in a new cultural environment, I could develop a better understanding of my own culture and worldview while gaining insight into another. Throughout my semester abroad I communicated with the people of a neutral country with a long, rich history. I learned by listening to their views of both their culture and that of my own country. Most of all, I gained perspective. I was able to view differing histories, literatures, cultures, and ultimately myself in new, more informed ways. I count my experiences studying abroad in Vienna as the highlight of my undergraduate education. I cannot wait to go back.

To help support student experiences like these please visit: www.supportUM.org and note CAS Student Experiences in your gift.
Department of Physics and Astronomy Celebrates 100th Anniversary

In celebration of the 100th anniversary of its creation, the Department of Physics and Astronomy hosted an Alumni Research Conference on September 30, 2011. Four of our distinguished alumni returned to UM to tell us about their research since graduating from the Department of Physics and Astronomy. Hilary Martens (UM class of 2008) led things off with a presentation on her geophysical and space physics research as a Marshall Fellow in England and as a first-year graduate student at Caltech. Hilary’s research included fieldwork in Iceland (see picture). Dr. David Westerly (UM class of 2003) gave a presentation on his research in “Protons and heavy ions in radiation therapy” that he is undertaking as a recent faculty member in the Department of Radiation Oncology at the University of Colorado School of Medicine. Brent Buffington (UM class of 2002), a mission specialist at Jet Propulsion Laboratory, presented on his work on designing and implementing the trajectory of the Cassini satellite which is currently orbiting Saturn. Dr. Ahmed Diallo (UM class of 2000) gave the final talk on his research in fusion energy as a scientist at the Princeton Plasma Physics Laboratory. The conference gave us an opportunity to hear about the activities of our alumni and to greet returning friends. The alumni research conference was followed by a reception and later, an open house at the Blue Mountain Observatory. The presenters and our entire department enjoyed the conference and reception. We believe the talks were inspiring to our current students and hope to host another alumni research conference in the near future (rather than waiting 100 years to do so!).

Physics and Astronomy Alumnus Brent Buffington

While many kids dream of space exploration, most do not envision becoming an aerospace engineer to do so. But this is exactly what happened to UM alumnus Brent Buffington. When Brent graduated from UM in 2002 with a BA in Physics and a minor in Mathematics, he knew he wasn’t quite ready to enter the “real world” and so, decided to attend graduate school at University of Colorado – Boulder to pursue an advanced degree. At CU-Boulder, Brent found orbital mechanics a natural fit. Upon graduation, Brent was hired by the JPL to design trajectories for unmanned spacecraft that explore the outer planets of our solar system.

Brent Buffington is currently part of the Cassini Navigation Team. The Cassini-Huygens space probe was designed to unlock the secrets of Saturn and its moons. Launched in 1997, the probe entered Saturn’s orbit in 2004, at which point the Huygens probe was separated from the orbiter and landed on Saturn’s moon, Titan in 2005. The Cassini probe continues to explore the Saturn system. For more information on the mission (or to download the Cassini app) please visit, http://saturn.jpl.nasa.gov. The Cassini Navigation team uses radiometric tracking data sent from the spacecraft back to Earth in order to determine the current position of the spacecraft, predict its location in the future (usually in reference to an important event such as moon flybys), and make corrections to its path (via propulsive maneuvers) if needed. That is to say, they are in the driver’s seat. When asked what he likes about his job, Brent said, “I get to actively participate in space exploration. In terms of Cassini, this means actually seeing the results of designing and navigating a complex gravity assist trajectory in the form of new scientific discoveries. In terms of proposed...
missions, this means working with a team of scientists and engineers to formulate the most efficient, safe, and practical ways to visit the most scientifically intriguing destinations in our solar system. Also, knowing at this very instant in time there’s a spacecraft over a billion kilometers from Earth orbiting Saturn following a trajectory that I helped design is pretty cool too.”

Recently, Brent was a featured alumnus speaker at UM’s Physics Department’s 100th Anniversary Celebration. He talked about his work at JPL and participated in an open forum with a Freshman Physics Experience class. He recalled that “while the event was a ton of fun, it was also a bit bizarre to be in the front of the very classroom where I took the majority of my upper-level physics classes sharing my knowledge to students sitting in the same seats I once sat in.” When asked what advice he would give to undergraduate students, he shared his father’s advice “…if you’re going to do something, do it right.” He then went on to elaborate “I think in the context of undergrad work this translates to, work as hard as you can, and absorb as much as you can in the limited time you have at U of M. With this said though, I would strongly recommend adhering to a, “work hard, play hard” mentality. Make time for friends, family, and the things you enjoy. This makes concentrating during the hard work easier and makes the successes you are able to share with others more fulfilling.” Brent credits this philosophy for getting him to where he is today… to Saturn and beyond.

Brian Wesbury 2011 Distinguished Alumni Award

Brian Wesbury ’82 is chief economist at First Trust Advisors, a financial services firm based in Wheaton, IL., and one of the nation’s top economic forecasters. Wesbury is a frequent contributor to the editorial page of The Wall Street Journal and economics editor of The American Spectator. He also is a frequent commentator on Fox, Bloomberg, CNBC, and BNN Canada Television, and a contributor to Barron’s, Investor’s Business Daily, Forbes and U.S. News and World Report. He was ranked the nation’s No.1 American economic forecaster by The Wall Street Journal in 2001 and one of the nation’s top 10 forecasters by USA Today in 2004. He has written two books: “The Era of New Wealth: How Investors Can Profit from the Five Economic Trends Shaping the Future” and “It’s Not as Bad as You Think: Why Capitalism Trumps Fear and the Economy Will Thrive.” Wesbury earned his Bachelor’s degree in Economics from UM, followed by a Master of Business Administration degree from Northwestern University. He is an adjunct professor of economics at Wheaton College and a member of the academic advisory council of the Federal Reserve Bank in Chicago. He also is an Eagle Scout and active member of his church and community. In nominating Wesbury, Ian B. Davidson ’53 wrote, “When he speaks for various professional groups, almost without fail he comments on the fact that he received his degree in economics from The University of Montana. For those of us associated with the University, it always makes us beam with pride when he mentions his experience as a student at UM.”

Research News

Sampling of Recent Awards for Scholarship, Teaching and Outreach by CAS Faculty

• Heather Almquist, Geosciences, Sarah Halvorson, Geography, Montana Geographic Alliance.
• Julia Baldwin, Geosciences, Acquisition of a new Scanning Electronic Microscope.
• Joel Berger, Biological Sciences, Migratory Species Workshop and Project Design.
• Ray Callaway, Biological Sciences, Lichen Inventory in Glacier Bay National Park.
• Mark Cracolice, Chemistry & Biochemistry, Inquiry HS Chemistry: Building a Statewide MT Network.
• Mike DeGrandpre, Chemistry & Biochemistry, An Arctic Ocean Sea surface.
• Kelly Dixon, Anthropology, Rosebud Battlefield: Site Mapping and Boundary Delineation Project.
• John Duffield, Mathematical Sciences, National Park Service Benefits Sharing.
• Dan Flores, History, Bighorn Canyon Oral History.
• Joel Harper, Geoscience, Jesse Johnson, Computer Science, Modeling Greenland NASA Data.
• Bill Holben, Biological Sciences, Research Experience for Undergraduates Site: Environmental Biology.
• Dick Hutto, Biological Sciences and Aviary Science Center, Bird Banding and Education.
• Dusten Hollist, Sociology, Juvenile Justice System Validation.
• Doug MacDonald, Anthropology, Yellowstone National Park History Structures.
• Marilyn Marler, Biological Sciences, Noxious Weed Management on Mt. Sentinel.
• Kelly McKinnie & Jenny McNulty, Mathematical Sciences, Math Enrichment Program for HS Students.
• Mizuki Miyashita, Anthropology, Linguistics, Blackfoot Document: Transcription.
• Doug Raiford, Computer Science, Extension of Markov Models.
• Dan Reisenfeld, Physics and Astronomy, IBEX Mission.
• Daisy Rooks, Sociology, Gaining a Leg Up or Becoming an Age.
• Ed Rosenberg, Chemistry & Biochemistry, Electroless Deposition.
• Robin Saha, Environmental Studies, Biomass and Waste Incinerator Study.
• Tobin Shearer, History, African American Studies, Beyond the Breadbowl.
• Gyda Swaney, Psychology, InPsych Program.
• Sally Thompson, Anthropology, Kootenai Traditional Stories Project.
the College of Arts and Sciences. The virtual bookshelf mirrors the real bookshelf located in the Dean's office. In this issue, we highlight two recent additions to the bookshelf. We invite you to peruse the writings of other UM scholars, whether you are on campus or online! If you are a CAS author, we invite you to help us build our electronic book collection—there is a mechanism at the base of the bookshelf to put your own book on the shelf.

If You Live by the Sword: Politics in the Making and Unmaking of a University President
By Lawrence K. Pettit

Pittsburgh Magazine says the book is compelling and “reads like a [a] tragicomic novel.” Born in Lewistown, Larry Pettit became a professor, political insider, and top administrator at institutions in the Montana University System and Indiana University of Pennsylvania. Dr. Pettit started out in politics as ASUM president during 1958-59. Between stints as a graduate student, he served on the Washington, D.C. staffs of Montana senators James Murray and Lee Metcalf, and then taught political science at Penn State. He returned to Montana in 1960 to teach at MSU, and in 1972 left to manage the successful gubernatorial campaign of Thomas L. Judge. The two-term governor endorsed Larry as Montana's first Commissioner of Higher Education, where he served an often-controversial five and a half years. He then worked as a university president and chancellor in Texas, Illinois, and Pennsylvania, retiring from IUP in 2003 amid yet more controversies. Larry addresses them head-on in his memoir of dual careers in politics and higher education. Missoulian state bureau reporter Chuck Johnson says the book provides “interesting insights into this state's modern progressive era in the 1970s and its politics and higher education.”

Larry Pettit is a 1959 alumnus of the University of Montana's Department of History.

Jeannette Rankin
A Political Woman
By James J. Lopach & Jean A. Luckowski

Jeannette Rankin, the first woman elected to Congress, stands tall among American icons. The representative from Montana won her seat at a time when women didn't have the right to vote in most states. Her firm stances inspired both admiration and fury across party lines, and she gained nearly canonical status among feminists and pacifists. In Jeannette Rankin: A Political Woman, University of Montana professors James Lopach and Jean Luckowski demythologize Rankin, showing her to be a talented, driven, and deeply divided woman. Until now, no biography has explored Rankin's inconsistencies. The authors extensively consulted the correspondence of her family members and contemporaries, uncovering ties between her politics and her familial and personal relationships. They reveal how she succeeded through her wealthy brother's influence as well as her own extraordinary efforts; how she drew inspiration more from the radical hotbed of Greenwich Village than from her rural roots; and how she championed an independent, woman-centered life while deferring to family. Revealing her complexities along with her accomplishments, Jeannette Rankin: A Political Woman will be the definitive biography of this pathbreaking politician for years to come.

James Lopach is a professor in the Department of Political Science and Jean Luckowski is a professor in the Department of Curriculum and Instruction.

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Faculty News
UM Grant Will Place Sensors Beneath Arctic Ice

University of Montana chemistry Professor Mike DeGrandpre and his partners have been awarded a $926,000 National Science Foundation grant, which will fund placement of carbon dioxide and pH sensors in the perennially ice-covered portion of the Arctic Ocean.

The sensors will be placed on ice-tethered profilers to be deployed by DeGrandpre collaborators John Toole and Rick Krishfield of the Woods Hole Oceanographic Institution. Ten CO2 and pH sensors in six locations will be placed just below the ice by drilling holes through the ice.

Data will be transmitted back to Woods Hole in Massachusetts via satellite, where it can be viewed as the sensors drift with the Arctic ice pack. More information on the ITP instruments is online at http://www.whoi.edu/itp.

The ITPs will be part of a larger Arctic Observing Network, in which sensors of all kinds are used to document changes in the Arctic. “With global warming we are seeing less summer sea ice, and the sea surface is warming and freshening,” DeGrandpre said. “This changing physical environment is altering the carbon cycle in the Arctic Ocean.”

He said it’s unknown whether carbon sources and sinks will change and whether these changes will lead to increased CO2 accumulation in the atmosphere, causing further warming.

The sensors also will study the penetration of human-produced CO2 in the Arctic Ocean, which leads to acidification with potentially fatal consequences for many organisms. The sensors will document changes in the CO2 cycling and ocean acidification in the Arctic during the next three to four years. The CO2 and pH sensors will be customized for deployment in the Arctic by Missoula’s Sunburst Sensors, a company co-owned by DeGrandpre and spawned by his UM research. The research project also will support development of an exhibit highlighting climate change effects on the oceans at spectrUM Discovery Area, an interactive science center for children in UM’s Skaggs Building.

Departmental Updates

Environmental Philosophy

The Department of Philosophy offers an emphasis in Environmental Philosophy as part of the Master’s degree. The environmental philosophy program takes advantage of the department’s expertise in wilderness issues, Thoreau, ethics and animals, ecofeminism, bioregionalism, philosophy of technology, philosophy of ecology, literature and the environment, synthetic biology, and climate ethics. The Department has faculty that are active scholars in this area, publishing articles and obtaining external grant funding. The program is interdisciplinary, with students complementing courses in Philosophy with relevant courses offered by the School of Forestry, Environmental Studies, English, and Native American Studies. Faculty have developed a new class in the philosophy of the science of ecology, require students to complete an internship with a local environmental organization/agency, and offer graduate seminars on different topical areas in environmental philosophy every year.

For more information please contact: Professor Deborah Slicer, Graduate Advisor, at deborah.slicer@umontana.edu or call 406 243-2527 or visit our website: http://www.cas.umt.edu/phil/.

Native American Studies

Congratulations to the Native American Studies Department! NAS received an award from the Missoula County Public School’s Indian Education Department stating, “Deep appreciation of your generous support of the Missoula County Public Schools Native American Indian Students.”

Anthropology

Thirty students of anthropology lecturer Garry Kerr are among the winners of the annual Public Anthropology Award.

More than 4,000 students from 25 schools competed for the awards, which are presented by the Center for a Public Anthropology, a nonprofit that encourages scholars and their students to address public problems in public ways. Kerr was honored for showcasing the ability of UM students to learn effective writing skills while being active global citizens.

History

The 2011 High Plains Award was presented to Dan Flores for his recent book “Visions of the Big Sky: Painting and Photographing the Northern Rocky Mountain West.” Professor Flores is the A.B. Hammond Chair in Western History; he specializes in the environmental and cultural history of the West.
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Please add a note on the reference line of your check if you would like to donate to a particular scholarship or program within the College.

If you have any questions about donations, please contact:  
Kelley Willett at kelley.willett@mso.umt.edu or  
Sarah Hinkle at sarah.hinkle@mso.umt.edu  
or by calling 406.243.2632

We are happy to provide you with information about our giving programs including the Dean's Opportunity Fund, annual gifts, the President’s Club, setting up a scholarship, endowments, or including the College of Arts and Sciences in your will or estate plans.

Coming to Campus?  
The College and The University of Montana have various events, lectures, programs and classes occurring all the time.  
Please contact us if you would like to visit the College, get a tour of the new buildings on campus,  
attend a class, meet the Dean, or chat about your time here.