Our big news this year is our three successful hires! This fall we conducted searches to hire faculty in Geographic Information Science and Medical/Health Geography, which were both successful. We are pleased to welcome Dr. Ran Wei and Dr. Neng Wan to the department. We also successfully negotiated the hire of a third new faculty, and are happy to welcome Dr. Rich Medina back to Utah Geography.

Neng Wan is a Medical/Health Geographer interested in developing GIS and spatial analysis methods to solve public health and environmental problems. His current research topics include cancer disparity, healthcare accessibility, functional degradation of older adults, and human-environment interactions. Dr. Wan received his Ph.D. from Texas State University San Marcos and is coming from a postdoc at University of Nebraska Lincoln.

Ran Wei is a GIScientist with research focused on the development of GIScience techniques to address important urban and environmental problems. Her methodological contributions fall into three main categories: location and transportation models, spatial statistical analysis, and spatial data uncertainty. Dr. Wei received her Ph.D. from Arizona State University and is currently a postdoc at Oregon State University.

Richard Medina is a GIScientist and Human Geographer interested in applications of GIS to studies of hazards and phenomena that directly impact human lives. Much of his primary research has been in areas of quantitative human geography and GIS applications. Dr. Medina received his Ph.D. from our department, and has been an Assistant Professor at George Mason University since 2011.

We are excited to have our new colleagues join us on campus this fall!

While we happily welcome our new faculty to Utah Geography, we say a sad farewell to Dr. Harvey Miller and Dr. Kevin Henry. Dr. Miller took the Reusche Chair in Geographic Information Science at The Ohio State University. Dr. Henry accepted a position in Epidemiology at Rutgers School of Public Health. We are sad to see our friends and colleagues go, however are happy for their new opportunities and wish them the very best!

In other news, we also launched two new undergraduate certificates this year, one in Hazards and Emergency Management and one in Climate Change. Read more about these great new programs inside. There are active discussions about a new OSH, which has been rumored for years, so to see actual movement on this front is very exciting. Our program continues to grow and improve! Check in with us (www.geog.utah.edu), we’d love to hear how everyone is doing and what everyone is up to. Thanks for your continued support!

Dr. Andrea Brunelle, Chair

Brian Haslam Graduate Scholarship

The Geography Department is pleased to announce the new Brian Haslam Graduate Scholarship. This scholarship will be used to help recruit top graduate applicants by increasing their stipend their first semester. The awardee will be selected based on the strength of their application and fit in our program. Ph.D. students and students interested in techniques will be prioritized, but all students are eligible. A big thank you to Brian for his continued support of Utah Geography!
Robert Argenbright: Robert earned a Ph.D. in Geography from the University of California, Berkeley in 1990. Before coming to Utah he was Associate Professor of Geography at UNC-Wilmington where he taught a broad range of human geography courses. At the U, Robert has taught World Regional, Human Geography, Geography of North America, Russia, Urban Geography, as well as History of the Soviet Union. In fall semester he will offer World Cities, GEOG 3610, for the first time. Robert visits Moscow every summer to conduct research on how the city has changed since the break-up of the USSR. In 2013, thanks to a Title VIII Research Grant from the National Council for Eurasian and East European Research, he was able to concentrate on the book project, *Moscow under Construction: City-Building and Urban Citizenship*. His most recent journal article was “Moscow on the Rise: From Primate City to Mega-Region,” *The Geographical Review*, 103 (1), 2013: 20-36. Also last year he wrote New Moscow or Medvedev’s Folly?: Going in Circles around Moscow’s Traffic Problem, *The Global Urbanist*, January 15. http://globalurbanist.com/2013/01/15/new-moscow. Finally, he revised and largely re-wrote a textbook chapter: Northern Eurasia, in Douglas L. Johnson, Viola Haarmann, and Merrill L. Johnson eds., *World Regional Geography: A Developmental Approach*, Eleventh Edition, Upper Saddle River, New Jersey: Pearson Prentice Hall, 2015, 218-255.

Genevieve Atwood, PhD. Physical geographer. Process geomorphologist. Teaching: Geography of Utah; Analysis of Utah Landforms; Geography, Yoga and Place. Research Areas: Coastal processes of closed-basin lakes, specifically Great Salt Lake. In September 2013, co-led the American Association of Petroleum Geologists field trip to Great Salt Lake to examine its environments for microbialites. Think algae. Think petroleum. Those lake smells of today can mean energy and money of the future. New interest: Elaine Bapis, PhD, of Westminster College and I teach Geog 2600-Geography, Yoga and Place. It's an interdisciplinary course that explores the intersection of "place" of physical geographers (Atwood), a "sense of place" of the humanities (Bapis), and its consequences, from ads for Dodge Ram trucks to conflicts of the Middle East.

Simon Brewer: Simon works with records of climate change and ecosystem response over broad time and spatial scales. This year sees the end of an NSF funded project to model vegetation changes for North America over the last 21,000 years, and results have been published in five journal articles in *Quaternary Science Reviews* and *Climate Dynamics*, and presented at meetings in France, Pennsylvania and San Francisco. Part of this work has led to the creation of an atlas of maps describing the vegetation cover of Europe since the last ice age. Additional research is underway on variations in the hydrological cycle around the North Atlantic basin for the past 1500 years and changes in peatland carbon accumulation over similar time scales, with results published in *Biogeosciences* and *Global Ecology and Biogeography*. He was the recipient of the College’s Superior Teaching Award for junior faculty for AY2013-2014, and this Spring, he is teaching a new seminar exploring alternative software for geospatial analysis from the Open Source community. Outside work, he can be found supporting Real Salt Lake, swimming, cycling and chasing a small ball around a racquetball court.

Andrea Brunelle: Andrea is the new chair of the Geography Department. She is a paleoecologist who studies environmental change with a focus on climate change and past ecosystem disturbances such as fire and bark beetle outbreaks. Much of her work has land management implications and she collaborates closely with colleagues from the Forest Service. Her geographical areas of interest include the Intermountain West and the American Southwest (including northern Mexico). She will be teaching a seminar on the Popular Literature on Climate Change in the fall, and continuing to teach Global Climate Change in the spring semesters. She visited Alaska last summer with her family and saw her first real glacier.

Larry Coats: has been a life-long resident of the Colorado Plateau, spending decades in each of the Four Corners states (and this spring makes it 10 years in Utah). His research includes paleoecology and climate change, especially reconstructing past environments in arid lands using packrat middens as a tool. Currently, he is working on reconstructing the paleoenvironments of Range Creek Canyon to support the archaeological investigations that are in progress, using alluvial sediments and packrat middens, and assisting students using dendroclimatology and bog sediment cores. He has also worked on the late Holocene distributions of Adelie penguins along the Victoria Land Coast of Antarctica, another very arid environment. Larry is currently debuting a new undergraduate lower-division class in the department- Greatest Snow on Earth: The Geography of Skiing.
Matthew H. Connolly, PhD: I am a broadly trained Environmental Geographer whose research applies GIScience tools and methods to human-environment interactions and water resource issues. I genuinely enjoy working with students, and over the years I have discovered that there is a reciprocal relationship between my teaching and my research. My research experiences have made me a better teacher, and vice versa. Last summer one of my publications entitled 'Estimating Residential Carbon Footprints for an American City' won two awards including "Best Paper of 2012" in the Journal of Applied Geospatial Research, and "Outstanding Published Journal Article for 2012 in IGI Global's Annual Journal Excellence Awards". Since the publication of this paper, I have used its content several times to develop new course-related activities.

During my one year appointment in the Department of Geography at the University of Utah, I have had the opportunity to work with some amazing students, further hone my GIScience skills, and learn from some of the best professional Geographers in the business. Although my teaching responsibilities and my search for a permanent tenure-track position have consumed the majority of my time this past year, I have managed to keep my research alive by involving my students in projects based on my water resource interests. Additionally, I will be presenting my dissertation research, 'Spatiotemporal Drivers of Municipal Water Consumption' in April 2014 at the Annual Meeting of the Association of American Geographers in Tampa, Florida.

Tom Cova: Tom’s research interests are hazards, transportation, and GIScience with a particular focus on wildfire evacuation. Last year he gave a talk at the National Academy of Sciences on “Geo-targeted warnings in wildfires” which examined the potential to warn people with cell-phones based on their location. He also presented talks at the 2013 Annual Meeting of the AAG in Los Angeles and the Boulder Hazards Workshop on “Modeling Protective-Action Triggers in Wildfires” which provided an overview of the research he’s been doing on an NSF project with Phil Dennison and Frank Drews. Tom teaches Introduction to GIS in addition to GIS & Python, the Geography of Disasters, and a seminar on Hazards and GIScience. He’s currently a visiting scholar in the Geography Department at San Diego State University where he’s researching social media, geovisualization, and spatial modeling as they relate to wildfires. He likes to hike, bike, ski and travel.

Phil Dennison: Phil and his grad students continue to work on research projects dealing with remote sensing, fire, and climate. Phil has been an important contributor to a proposed NASA hyperspectral/thermal infrared satellite mission called HyspIRI. This fall, he led the development of demonstration products based on airborne data being acquired over California in 2013 and 2014. He is currently working with other researchers to organize a HyspIRI special issue for the journal Remote Sensing of Environment. Phil also had an active role in the design of a wildfire exhibit on display at the Natural History Museum of Utah last summer and fall. Interactive displays created by museum staff allowed visitors to visualize land cover changes in the Salt Lake Valley over the past 30 years and compare fuel, climate, and weather contributions to fire behavior. This fall Phil taught Geography 6961, the introductory graduate Seminar on Geographic Thought and Inquiry, for the first time.

Elizabeth Dudley-Murphy: Elizabeth is Adjunct Associate Professor in the Geography Dept., originally from northern Chile in the Atacama Desert, where she was born and raised. She received her PhD from the Geography Dept. in 1996 and since then has been working with the Energy & Geoscience Institute (EGI). She has been teaching GIS in the Civil and Environmental Engineering Department for several years, where she co-taught with her colleague Greg Nash, also a graduate of the U of U Geography Dept. This year Elizabeth began teaching our Intro to GIS class (3140-90) completely online in Canvas. Besides GIS, Elizabeth also teaches three other online classes for the Geography Department and is the faculty representative at the University of Utah for the School for Field Studies, Environmental Field Studies Abroad Program that is based in Salem, Massachusetts. Her research interests include the application of remote sensing and GIS for urban and vegetation analysis - specifically the urban forest. She is working with colleagues to develop new methods based on high spatial resolution imagery for characterizing the urban forest in the Salt Lake Valley. At EGI Elizabeth has provided GIS and Remote Sensing support for projects in Antarctica, Indonesia and the Raft River area in Idaho.

Steven Farber: Steven is a transportation geographer interested in the relationship between urban spatial structure and peoples' daily behaviors. His funded projects investigate distance based transit fares, social interaction potential, and the measurement of continuous accessibility using public transit travel time cubes. This year he’s received new funding from the National Science Foundation and the National Center for Transportation and Communities. He is helped by a great research team consisting of students and post-doctoral fellows.

Rick Forster: Rick is serving as Interim Associate Dean of the College of Social and Behavior Science this year. He is a glaciologist using remote sensing satellite and airborne data along with field measurements to study climate change effects on
glaciers and seasonal snow. Rick’s recent work is focused on the Greenland ice sheet where his team discovered an aquifer of water stored year-round in the upper part of the ice sheet within the buried snow. The team will be making more measurements on the aquifer in April 2014.

Kathryn Grace: is a population geographer and most of her research focuses on women, children and couples in the poorest countries in the world. Kathryn will be teaching two undergraduate courses this fall - a population geography course and a development economics course. As part of a NASA-sponsored project, Kathryn traveled to West Africa last summer to ground-truth remotely sensed imagery and to speak with local farmers about their use of family planning and their agricultural practices (these things are related!). She’s looking forward to another busy summer of Africa field-work.

Spike Hampson: has continued teaching online courses for the department – two in the summer, four in the fall, and four this spring. Also, he has been working on a new, upper-division, online course for the Middle East Center: “Landscapes of the Middle East.” It is ready to go and will be offered for the first time this coming fall. As for his boating life, Spike was obliged to rebuild Kobuk, the riverboat that he has taken across the country and out into the Caribbean. When the work was done, he made the open water crossing from the Turks & Caicos Islands to the Dominican Republic, where Kobuk is now in storage. Last May, Spike bought a second boat – a 25’ Cape Dory sailboat located in Rockport, Texas. He will be going there in early April to start voyaging northward. He hopes to eventually reach Newfoundland (probably in 2015) and then in the summer of 2016 do a crossing of the North Atlantic via Greenland and Iceland.

George Hepner: George is a professor on leave from the University of Utah in 2013-14. He was invited as a visiting professor for the fall semester at Akita International University in Akita, Japan. In this position, he taught the Geography of International Terrorism as a Capstone class within the Global Studies curriculum of AIU. He is using this opportunity to research the rise of various Asian terrorist groups. His recent research has resulted in the publication of The Geography of International Terrorism: An Introduction to the Spaces and Places of Violent Non-state Groups, co-authored with Rich Medina, in 2013. http://www crcpress.com/product/isbn/9781439886861 He is Director of the U of U initiative for a US Geospatial Intelligence Foundation (http://usgif.org/) certificate in GEOINT.

Kathleen Nicoll: is a Research Associate Professor and Director of the DIGIT Lab at the University of Utah. This past year has been very exciting in the DIGIT Lab. The DIGIT Lab continues to support geospatial research across campus as well as provide GIS support to a very diverse group of outside clients. A few notable projects include supporting the Salt Lake Cooperative County Plan by developing an online GIS data sharing network to assist planners; providing base maps and data for the Kingdom of Saudi Arabia for Rockwell Collins, Inc.; and supporting the management of the national historic trails for the National Park Service - National Trails Intermountain Region. The DIGIT Lab also has started an annual meeting sponsorship of the Salt Lake User Group (SLUG), the user group for local GIS practitioners. Hosting SLUG allows the University to actively connect with the GIS community and provides our students with a great opportunity to learn about local GIS applications and start building their professional networks. Phoebe also serves as vice-chair on the Utah Geographic Information Council. When time allows outside of DIGIT and teaching the Capstone courses, Phoebe’s research interests include geographic information science, geographic visualization, spatial decision support systems (SDSS), and snow science. Phoebe is currently working with the Snowbird Ski Patrol on a SDSS for avalanche control work and is looking to expand her snow science research now that her knees are good enough to once again travel in the back country.

Jude Mikal: is an assistant research professor with the College of Social and Behavioral Sciences. In his own research, Jude specializes in social psychology, and looks at stress, social support, and group dynamics in online social environments. An interdisciplinary researcher, Jude has collaborated with faculty from Education, Psychology, Nursing, Geography and Communications. Jude provides research development services for each of the seven departments in the College of Social and Behavioral Sciences - consulting on project design, finding funding, grant writing and grant administration. In the Geography Department, he has consulted with Drs Brewer, Brunelle, Farber, Grace, and Powers on projects ranging from ecosystem change, to transportation, and maternal / child health in Africa. He is offering a spring course on grant writing for advanced graduate students.

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Kenneth Petersen: Ken’s specialties are palynology and environmental archaeology. He joined the Geography Department and the RED Lab as an Adjunct Research Faculty in the summer of 2009. His earliest exposure to studies of the interaction of climate and humankind occurred in the mid 1960s while working on high elevation game drive systems and Holocene cirque glaciation in the Colorado Front, above Boulder, Colorado. He completed his Bachelor of Arts degree in Anthropology at the University of Utah (where he TA’ed a pollen analysis class in the Stewart School building in 1970) and went on to get his Master of Arts and Ph.D. degrees in Anthropology at Washington State University - all using pollen studies in the western United States. He completed a post doc with field work in Egypt doing pollen studies on Nile flood history. He has lived in Utah, Washington, and Colorado, as he pursued careers associated with archaeological salvage ahead of dam construction, nuclear waste cleanup, and college outreach. Since joining the department he has led the GEOG 6430 PERG Reading Group, and this spring is teaching GEOG 5420/6420 Pollen Analysis. He is a co-author on a research article published in 3/2013 in the Journal of Archaeological Science dealing with prehistoric maize production in the American Southwest. He and his wife like to visit their grandchildren and take walks together. Ken is also an avid Amazon Kindle reader.

Mitchell Power: Mitchell holds a split position at the University of Utah serving as an Assistant Professor in Geography and the curator of the Garrett Herbarium at the Natural History Museum of Utah. His interests include botany, paleoecology, biogeography, fire history, and paleoclimatology. As Curator of the Garrett Herbarium, Mitchell has been investigating the history of vegetation and the role of fire during the past several thousand years in the western United States and the American tropics. Mitchell studies fossil plant material preserved in sediment cores from lakes and other archives to understand how plant composition and distribution changes through time with changes in climate and disturbance. Recently, he has been working on data-model comparisons to understand mechanisms driving observed changes in past fire activity on global scales. This summer he will be travelling to Medellín, Colombia to participate in a symposium focusing on the last 2000 years of climate history in the tropical Americas.

Dennis Wei: attended International Geographic Union Regional Conference in Kyoto, Japan. He and his students have kept receiving awards in research, including Best Faculty Paper Award (with Hao Huang) from Annual Conference of the Sociology of Development. He continues to work on Lincoln Institute of Land Policy project on urban land expansion and spatial restructuring in China.

Ingrid Weinbauer: Ingrid is an Adjunct Assistant Professor in the Geography Department. She was born and raised in a small town in Austria. Ingrid came to the United States in 1991 after meeting her spouse in the Austrian Alps, where both were teaching skiing. She has lived in Colorado, NY State, and Minnesota before arriving in Salt Lake City in 2001. Ingrid usually teaches 3 classes per semester, including Principles of Cartography. In her free time, she likes to ski and cook and usually makes a trip across the ocean in the summer to see her family.
includes reconstructing fire and vegetation histories, as well as determining the mechanisms that have influenced and driven climate for the region over time. She hopes this work will benefit land management and restoration efforts throughout Mexico and the desert Southwest of the United States. For the 2013-2014 academic year, Vanessa received funding from various outlets including the Diversity Fellowship, the Don and Sue Lewon Honor Roll Scholarship, and a teaching assistantship through the Geography department. In April she will be presenting some of her preliminary thesis work at the AAG Conference in Tampa, FL. When she’s not doing research, you can find Vanessa outdoors—enjoying climbing, hiking, and traveling.

Edward Conrad: My place in the Geography Department is explainable by recounting my experience as an itinerant field biologist where I gained a keen interest in understanding why species occur where they do. After graduating with a Bachelor’s degree in Biology, I spent 7 years working on ornithological research projects in nine U.S. states and four foreign countries. I witnessed firsthand countless phenomena of the natural world because my work took me to remote far-flung places that were often inaccessible to the public. It culminated with witnessing the dramatic change in avifauna that occurs by crossing Wallace’s Line located between the islands of Borneo and Sulawesi in Southeast Asia triggering lucid memories of David Quammen’s book, “Song of the Dodo,” which details the scientific discipline of island biogeography and the lives of past naturalists such as Alfred Henry Wallace. Today my graduate research continues to explore my fascination for why species occur where they do. I am creating species distributive models which are frequently used to show a species’ response to climate change. I aim to make these predictions more robust by incorporating functional traits such as behavior, morphology, behavior, and life history that will provide mechanistic links that better explain the factors controlling an organism’s geographic distribution.

Ryan Hile: A first year master’s student from Gillette, Wyoming. He recently completed a B.A. in Geography at Auburn University in Auburn, Alabama in 2013. His research interests include human dimensions of environmental hazards, particularly with social vulnerability, as well as social equality and social justice, cultural and natural resources, and GIScience. He currently works in the DIGIT Lab as a graduate assistant. Ryan has worked with GIS professionally for over ten years, as both a private consultant and as specialist for a consulting firm, working primarily in extractive industry. He has just received final acceptance on a co-authored paper to be published in Himalaya, the Journal of the Association for Nepal and Himalayan Studies. The paper discusses the importance of centralizing information exchange in the Himalayan region related to hydropower projects and the creation of an online GIS platform to allow NGOs to collaborate in the region. When Ryan isn’t working on any number of ongoing projects, he enjoys reading novels and comic books, watching movies, and playing video games.

Joshua Mueller: I was born and raised in Oshkosh, Wisconsin and lived there for about 25 years. I completed my Bachelor’s degree at The University of Wisconsin-Oshkosh, before departing to begin graduate school work at both Kansas State University (Masters) and The University of Utah (PhD). My research interests center around paleoenvironmental reconstructions, specifically fire history reconstructions throughout the upper Midwestern United States, and also paleotempestology reconstructions throughout the British Virgin Islands. Hobbies of mine include: Bodybuilding, wakeboarding, snowboarding, mountain biking, guitar, music theory, English Bulldogs, hiking, field work, and traveling.

Emily Nicolosi: Originally from the New York metropolitan area, I studied Anthropology and Studio Art as an undergraduate at the University of Vermont. As an Anthropology student, I focused on environmental problems and globalization, particularly looking at conflicts involving indigenous communities. I studied abroad for one year with the International Honors Program “Rethinking Globalization,” which was a mind-bending and informative investigative process. At the University of Utah, I am working through the Geography department to study climate change communication and am a fellow with the Global Change and Sustainability Center. I am interested in investigating how the science of climate change can be communicated in a way that promotes climate change mitigating efforts. I am excited about cultivating a holistic understanding of climate change, with the goal of supporting a career in advocacy for climate change mitigation. When I’m not doing work, you can find me in Little Cottonwood Canyon skiing in the winter or mountain biking around the Wasatch in the summer.

Howdy from North Texas! It is hard to believe that it has been almost four years since I graduated from the department with my Ph.D. Since leaving Utah, I have been fortunate to work as an assistant professor in the Department of Public Administration at the University of North Texas. Here at UNT, I teach in our Emergency Administration and Planning Program as well as in our Public Administration Program. As a hazards geographer, this has been a good fit for me, as I am able to apply the knowledge and skills I gained working as a research assistant for Tom Cova at the Center for Natural and Technological Hazards and as an intern for the Utah Division of Emergency Management in the classroom setting. Additionally, the research component of the job has been a lot of fun. Since arriving at UNT, I have had the opportunity to collaborate with other faculty in my department and in the ALUMNI
Summer of 2012, several of us were awarded an NSF Rapid grant to study disaster resilience following the 2011 floods in Thailand. It was a great experience travelling to Thailand and learning about emergency management in their county. I will be doing some more travelling this summer as myself and another faculty member from the Communication Studies Department and UNT are taking students to Peru to learn about emergency management and crisis communication in Lima and Cusco.

Outside of work, things are fantastic. My husband and I really enjoy living in North Texas. Zeb has been working as a trooper for the Texas Highway Patrol. He especially likes his job because it gives him an excuse to wear boots and a cowboy hat every day. We do miss Utah and I really miss the faculty and friends I made in the department. I cannot express enough thanks and gratitude to the Geography Department at the University of Utah for everything they have done for me. I hope to visit Salt Lake City again soon, but until then, Go Utes!

The term geospatial intelligence refers to "the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced human activities on the Earth. GEOINT information consists of maps, imagery intelligence, and geospatially-referenced information." The primary use of GEOINT is in military and security operations, but it has application to business locational analysis, SWOT analysis, environmental monitoring and relevant policy formulation. This certificate program can supplement undergraduate and graduate degrees or be taken by non-matriculated students. The program provides students with a broad set of skills in the areas of geographic information systems, remote sensing, geospatial statistical analysis, intelligence gathering and global positioning systems. Accredited by the United States Geospatial Intelligence Foundation (USGIF) in 2012, the University of Utah's GEOINT Certificate Program assures the geospatial capabilities of students entering the field and provides valuable continuing educational opportunities for professional development. USGIF’s accreditation program was established in 2005 to encourage higher education institutions to develop academic certificates that prepare students to advance the geospatial intelligence field. Certificate graduates meet the requirements for professionals set forth by the USGIF. http://www.geog.utah.edu/certificates/2-uncategorised/19-geospatial-intelligence.html

As the GIS Certificate crests its 15th year, a recent reassessment of departmental goals led to the need to streamline its requirements. With the new professional Masters of Science in GIS (MSGIS) up and running, the overlap between the two curricula became an impediment for GIS Certificate students that want to continue on for the MSGIS. A secondary goal was to open the certificate up to more students in the College and the wider U community. The new version of the certificate will require one year of GIS coursework instead of two, and students can use a statistics course from their home department to fulfill that requirement. Furthermore, a new introductory course will be required called Geo-programming that will introduce students to general purpose programming in Python with a particular focus on spatial problems. Additional courses include Cartography,
a field-based course called GeoData Field Methods, and the current Capstone course that operates much like a mentored internship. For additional information on the new requirements check the Geography Department webpage.

http://www.geog.utah.edu/certificates/2-uncategorised/18-gis-certificate.html

### Hazards & Emergency Management Certificate

As extreme events increase at all scales due to population growth in hazardous areas, the rise of terrorism and climate-change, there’s a growing need for highly-trained people to address issues in disaster mitigation, preparedness, response, and recovery. Utah is essentially a real-world hazards lab and home to many environmental hazards including extreme weather, avalanches, earthquakes, floods, wildfires, landslides, and hazardous materials releases. To address this need the Department recently sought and received approval from the Regents to offer an undergraduate Certificate in Hazards & Emergency Management. The hazards tradition in Geography began with Merrill Ridd’s class on Wasatch Hazards in the late 1970s, and Fred May ran a very successful FEMA-approved certificate program in the 1990s as Director of the Center for Natural & Technological Hazards. This new certificate will continue this tradition. The proposed program will provide students with cutting-edge knowledge about hazards, emergency management, and geospatial technologies. By earning the certificate, students will:

- Understand the fundamentals of environmental hazards and how to reduce their impact
- Understand the principles of emergency management
- Develop skills in applying geospatial technologies to managing emergencies
- Learn about the emergency management phases: mitigation, preparation, response, and recovery
- Learn about approaches to dealing with terrorism and preserving homeland security

The general philosophy of the certificate is to blend interdisciplinary coursework on various threats with those associated with management, decision making, and human response in emergencies. While Geography will oversee the Certificate, the list of participat-ing departments includes Atmospheric Sciences, Geology & Geophysics, Family & Consumer Studies, Health Education, Psychology, Political Science, and Sociology. For more information on the course requirements and any other updates, see the Geography Department webpage.


### Climate Change Certificate

Human alteration of Earth’s climate is an accepted scientific fact (Anderegg et al., 2010; IPCC, 2007; Oreskes, 2004). As a result of the politicization of the issue and poor communication by the scientific community, the public and private sectors have gained limited knowledge of how the climate system operates, the science of climate change research, and societal impacts of these changes. As the impacts of climate change become more severe over the coming years and decades, companies, government agencies, and non-governmental organizations will be required to adapt and respond to climate change. Scientifically-based, up-to-date knowledge is essential to formulating adaptation and response strategies. A certificate in climate change is marketable evidence of this essential knowledge.

This program will provide students with cutting edge knowledge about climate, climate change, impacts and relevance. By earning this certificate, students will:

- Understand the fundamentals of climate systems.
- Understand the fundamentals and scientific background of climate change.
- Understand the science of global warming.
- Learn about mitigation and adaptation strategies for dealing with climate change.
- Learn how climate change permeates nearly every aspect of our lives.

This certificate would be valuable to a wide range of career options including but not limited to:

- land managers, governmental employees, environmental and social equity advocates, and environmental consultants;
- local, state, and federal government administrators;
- natural and geological science researchers, scientists, planners, and policy-makers;
- individuals looking to be better global citizens by understanding the science behind climate change.

The Geographic Information Science Master’s program started its second year in 2014 with a total of nine students enrolled in the program. The MSGIS is a professional degree option that focuses on coursework and building a portfolio of GIS projects. Required classes include Spatial Data Design, Spatial Modeling, Project Management, Web GIS and Geoprocessing with Python. Students choose from a set of Application and Technical electives to round out the program. The final course is a capstone taught by Dr. Phoebe McNeally which requires students to apply aspects of the curriculum to the analysis of a real-world problem. Kaitlin Barklow is expected to become our first MSGIS graduate following the defense of her portfolio in late April, 2014.

Wildfire Display

Last July 4th weekend, the Natural History Museum of Utah opened a new portion of its Nature Unleashed exhibit focusing on wildfire in Utah and the West. The new exhibit included work from many U of U geographers. Dr. Mitch Power contributed work on fire regimes and climate, and the exhibit displayed one of Dr. Power’s sediment cores that shows charcoal layers from past fires. Dr. Phil Dennison helped write the exhibit text and collaborated on the development of two interactive displays. Dr. Tom Cova helped with exhibit materials pertaining to the wildland urban interface. Master’s alum Greg Fryer was instrumental in developing the wildland firefighter portion of the exhibit, which includes quotes from Greg and other firefighters. The biggest treat for those who know Greg is a life-size cutout of him! The exhibit ran through Thanksgiving. Parts of this display are now on loan to the Department of Geography and set up on the 2nd floor of Orson Spencer Hall southeast lobby. Come and check them out. Thanks again to the Natural History Museum of Utah!

Marriott Library Display

The Marriott Library is showcasing maps made by Geography student cartographers in a new display called “Geography is Everywhere.”

The display, which is located in the southeast corner of the third floor, exhibits six maps printed in full color and ranging in sizes up to 12 square feet. The maps were the culminating project for a cartography course taught by Ingrid Weinbauer. Each map was selected as exceptional work by the members of the Department of Geography, who hope the library display will attract more students to consider Geography.
Sean Reid: Sean plans to complete a B.A. degree in Geography with a minor in Arabic; and complete a Geo-Spatial Intelligence and GIS certificate along with an Undergraduate Research Scholar Designation in May, 2015. With these credentials paired with undergraduate research he plans to pursue a job with one of the many geospatial-intelligence agencies. Sean actively engages in the various events and activities of the Geography Club and Gamma Theta Upsilon (GTU) Honor Society in the Geography Department and has recently volunteered as a Peer Advisor helping with program advising and recruiting. He has also served as the Geography Undergraduate SAC Chair for the last two years.

We would like to extend a big THANK YOU to Dr. Merrill K. Ridd and the many donors that have contributed to the Merrill K. Ridd Scholarship over the past several years. Your generosity has helped a deserving undergraduate student with a financial award of $1,000 per year beginning fall semester, 2010. The scholarship is a wonderful way to honor Dr. Merrill K. Ridd’s accomplishments as a professor and his passion for undergraduate student education. If you would like to make a contribution, details are located on the last page of this newsletter.

Vanessa Chavez: Vanessa is studying the long-term responses of fire, vegetation shifts, and ciénega activity to predict how ciénega activity in the Sierra de Juarez of northern Baja California, Mexico will be affected by future climate change. Vanessa plans to use her Donald R. Currey Graduate Scholarship to pay for two radiocarbon dates to help establish a chronological framework to determine when changes in fire and vegetation occurred.

Vachel Carter: Vachel along with 9 classmates in the GEOG 6410 Paleoclimatology class are looking at pre- and post-European settlement impacts at Fish Lake, Utah. The research sampling will add more dates to continuing research at Fish Lake which will be used to explore the biological and geochemical changes that are linked to changes in the landscape use after the arrival of Euro-Americans. Vachel plans to use her Donald R. Currey Scholarship to pay for two AMS dates to build a chronology for this study at Fish Lake.

Isaac Hart: Isaac’s research consists of studying Yampa, a traditional food source for prehistoric Great Basin peoples, in a high elevation patch on the south end of the Deep Creek Mountains. This patch has been the focus of human harvesting activities since at least the early historic period and likely longer. The Yampa patch is located on Goshute tribal reservation lands and is a good core site for paleoenvironmental reconstruction. Isaac plans to use his Donald R. Currey Graduate Scholarship to pay for two radiocarbon dates on his sediment core.

We would like to extend a big THANK YOU to Stan Currey, his family, and the many donors that have contributed to the Donald R. Currey Graduate Research Scholarship over the past several years. Your generosity has helped many graduate students with field related expenses necessary to complete their thesis and dissertation research projects. This is a wonderful honor to Donald R. Currey’s memory. If you would like to make a contribution to this scholarship, details are located on the last page of this newsletter.
Scholarships/Awards

Donald R. Currey 2014 — Vachel Carter, Vanessa Chavez & Isaac Hart

Merrill K. Ridd — Sean Reid

CSBS Graduate Honor Roll Scholarship — Vanessa Chavez

E. Rich Brewer — Nicole Talbot

Continuing Student Awards — Marc Healy, Mary McIntyre, Michael Mortenson & Sean Reid

NASA ESSF Fellowship — Clement Miege

David C. Williams Memorial Fellowship — Vachel Carter

NGA Student Program — Brandon Thiel

Thomas G. Stockham Medal for Conspicuously Effective Teaching — Tim Edgar

University Teaching Assistantship — Haifeng Felix Liao

GIS Day/Geography Awareness Week

Geography Awareness Week and GIS day are annual, internationally recognized events that promote the many exciting activities and careers Geographers are associated with, including GIS, urban-economic systems and earth system sciences. Geography Awareness Week is a very important week to the department because it recruits potential Geography majors, as well as highlights the many career opportunities that exist for geography majors after graduation. Geography Awareness Week took place November 18-22, 2013.

This year’s Geography Week line up included two guest speakers who each discussed research in GIS and Medical Geography. These were held on Tuesday and Thursday. Light refreshments were served at both talks. On Wednesday, GIS Day, there were two career panel discussions consisting of four panelists in each panel. Panelists included: Remote Sensing Application Center, Utah Trust Lands, United Way, Salt Lake County Surveyor’s Office, Thomas Toronto GIS, HDR Inc., AGRC, Park City, NOAA and The Utah Geological Survey. Students were able to talk with potential employers about job openings as well as discuss current research these panelists were doing. We had our Geography Week Open House on Wednesday, which included refreshments and a photo contest where students could vote on their favorite photos. Winners of the photo contest received awesome Geography t-shirts and one lucky winner won a gift card to the Campus Bookstore. The highlight of the week was the Geography Department Research Crawl held on Friday. Students and faculty went on a tour of all the research labs in the Geography Department and learned about the new and exciting research each lab was working on. The crawl started in OSH and visited URSA, Cnth, and DIGIT Labs. We then took a shuttle to Research Park and visited the RED Lab, Snow and Ice lab, and Paleo Data Lab. Kathryn Grace and Steven Farber presented their exciting research as well. The shuttle then took the crawl to the last stop, which was the Power Paleocology Lab at the Natural History Museum of Utah. Afterwards some folks took the opportunity to enjoy the museum exhibits, which is free for all University of Utah students. The Research Crawl was a hit and hopefully will be a reoccurring event during Geography Week!
The Geography Club, Gamma Theta Upsilon Honors Society University of Utah Alpha Epsilon Chapter (GTU), and Student Advisory Committee (SAC) are excited about the 2013-2014 school year and the activities they have organized. Graduate SAC chairs are Vachel Carter and Vanessa Chavez and Sean Reid is the Undergraduate SAC Chair. They did an outstanding job organizing this year’s Geography Awareness Week. GTU and Geography Club President is Mike Mortensen with Curtis Olson as Vice President. They currently completed their 2nd annual Valentine’s Day Fundraiser, where they sold roses and chocolates. This has been a successful fundraiser both years. Geography Club and GTU are also working on a project with Save our Canyons, which will allow students to work on historical maps looking at how urbanization has encroached on our National Parks and Wilderness Areas. They are working on other fun and exciting projects with Save our Canyons that will continue on for several years in the hope of cultivating a relationship that will last. These projects will be geared towards creating a volunteer force that will collect datasets, create maps, and gain real world experience. In the near future be on the lookout for opportunities to take part in this great program. To get more information on upcoming events regarding GTU and Geography Club, you can stop by the Geography Department’s Main Office in OSH 270 or join the Department’s mailing list for email updates. Regular emails are sent out concerning beneficial opportunities within the department.

We wish to thank the following individuals for their generous donations!

Dr. Richard C. Campany, Jr.
Brian Haslam
Jiajun Liu
Tong Zheng
Daniel S. Matheson
Merrill K. and Codele C. Ridd

Derrick & Elizabeth Thom
Christine L. Tobolski
Lotti Ann Wann
Scott and Daphne White
David & Margie Wilkins
Alan J Woolverton, Jr.

Emeritus Faculty
Donald R. Currey (Deceased)  Albert L. Fisher
James W. King  Thomas Kontuly
Chung-Myun Lee  Roger M. McCoy
Merrill K. Ridd  Leroy H. Wullstein

Geography needs your support! Please see form provided at the end of this letter. Thank you!
Invest in Your Degree For the Future

You can help make your degree worth more:

These are difficult times for a state university.
We need all of our alumni to take a more active role in supporting our department.

- If you have specific knowledge of employment opportunities for our graduates;
- If you can use the department or DIGIT lab for funded research/service projects;
- If you have ideas and time to devote to improving our department;
- If you have a desire to support the department and the students financially;
- If you want to support financially and participate in our Fall picnic or Spring awards activities

Contact andrea.brunelle@geog.utah.edu if you have any questions about Geography Donations

We have appreciated your generous donations in the past. Please consider taking this opportunity to donate to our scholarship funds. Be sure to indicate which fund you would like your donation directed to.

All contributions are tax deductible.
We look forward to hearing from you!

For online donations click on the link: [https://umarket.utah.edu/ugive/index.php?gift_id=143](https://umarket.utah.edu/ugive/index.php?gift_id=143)

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Please complete this form and return to:
(Check payable to U of U Geography Department)

University of Utah  
Department of Geography  
260 S. Central Campus Dr., Rm. 270  
Salt Lake City, UT 84112-9155

Phone: (801) 581-8218  
Fax: (801) 581-8219  
Email: pam.mitchell@geog.utah.edu

Scholarships and Funds

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