

**EDUCATION**

- Ph.D. in Marine Science, University of South Carolina, 2008
- M.Sc. in Geology, Iowa State University, 2004
- M.Sc. in Environmental Geology, Jiangnan Petroleum University, 2000
- B.Sc. in Geophysics, Jiangnan Petroleum University, 1997

**PROFESSIONAL EMPLOYMENT**

- Assistant Professor August 2012-present  
Department of Earth Science  
Utah Valley University, Orem, UT
- Instructor with Tenure Track September 2010-June 2012  
Department of Environmental Science  
Brookdale Community College, Lincroft, NJ
- Postdoctoral Associate January 2009-June 2010  
Department of Ecology, Evolutionary Biology  
Yale University, New Haven, CT
- Research Assistant, for Dr. James T. Morris, January 2006-December 2008  
University of South Carolina, Columbia, SC
- Teaching Assistant, "Introduction to oceanography II" August 2005-December 2005  
University of South Carolina, Columbia, SC
- Teaching Assistant, "Introduction to oceanography I " January 2005-May 2005  
University of South Carolina, Columbia, SC
- Teaching Assistant, "Sediment Transport in SE, USA" January 2005-May 2005  
University of South Carolina, Columbia, SC,
- Research Assistant, for Dr. German Mora, January 2004-December 2004  
Iowa State University, Ames, IA,
- Teaching Assistant, "Geographic Information System" August 2003-December 2003  
Iowa State University, Ames, IA
- Research Assistant, for Dr. German Mora, January 2003-May 2003  
Iowa State University, Ames, IA
- Instructor, "Sequence Stratigraphy" September 2002-December 2002  
University of Petroleum, Dongying, Shandoing, China
- Instructor, "Environmental Geology" January 2002-July 2002  
University of Petroleum, Dongying, Shandoing, China
- Instructor, "Sedimentology" September 2001-December 2001  
University of Petroleum, Dongying, Shandoing, China
- Instructor, "Alternative Energy", January 2001-July 2001  
University of Petroleum, Dongying, Shandoing, China
- Research Assistant, for Dr. Zaixing Jiang January 2000-December 2000  
University of Petroleum, Dongying, Shandoing, China

**SKILLS**

- Computer: AutoCAD, CorelDRAW, Photoshop, Canvas, Origin, SigmaPlot, Illustrator, ArcGIS, Matlab, SAS
- Laboratory: Preparation of plant material, soil organic matter, water, CO<sub>2</sub> gas, black carbon for stable isotope analysis, water and sediment trace metal analysis
- Analytical Skills: IRMS (Isotope Ratio Mass Spectrometer), TC/EA (Temperature Conversion/Elemental Analyzer), Gas Bench, CHNS analyzer, GC (Gas Chromatographer), Vacuum Lines, LI-COR 6400 Portable Photosynthesis System, ICP-OES (Inductively coupled plasma - Optical Emission Spectrometry)

## ***PROFESSIONAL AFFILIATIONS***

- National Association of Geoscience Teachers
- Geological Society of America
- American Geophysical Union

## ***TEACHING***

### *Courses Taught at UVU*

- |  |              |
|--|--------------|
| • Italy Study Abroad GEO/BIO204R   | 2017-present |
| • Hybrid Introduction to Geology (GEO1010)                                 | 2017-Present |
| • Introduction to Physical Geography (GEOG1000)                            | 2016-Present |
| • Wetland Studies Laboratory (GEOG3705)                                    | 2016-Present |
| • Wetland Studies (GEOG3700)   | 2015-Present |
| • Introduction to Geographic Information System (GEOG3600)                 | 2014-present |
| • Wetland Special Topic (GEO490R, later listed in the catalog as GEOG3700) | 2014         |
| • Introduction to Oceanography (GEO1080)                                   | 2014-present |
| • Energy on Earth (ENVT/PHYS/CHEM3800)                                     | 2013-present |
| • Introduction to Geology (GEO1010)  | 2012-present |

### *Courses/Labs Taught at Other Institutions*

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|---|-------------|
| • Introduction to Alternative Energy (ENEG125), Brookdale Community College       | 2011-2012   |
| • Marine Biology (BIOL207), Brookdale Community College                           | 2011-2012   |
| • Environmental Science (ENVT107), Brookdale Community College                    | 2010-2012   |
| • Physical Geology (ENVT101), Brookdale Community College                         | 2010-2012   |
| • Introduction to Oceanography II Lab (MSCI101), University of South Carolina     | Fall 2005   |
| • Introduction to Oceanography I Lab (MSCI102), University of South Carolina      | Spring 2005 |
| • Sediment Transport in southeast USA Lab (MSCI210), University of South Carolina | Spring 2005 |
| • Geographic Information System Lab (GEOL453), Iowa State University              | Fall 2003   |
| • Sequence Stratigraphy (GEOL310), University of Petroleum, Dongying, China       | Fall 2002   |
| • Environmental Geology (GEOL220), University of Petroleum, Dongying, China       | Spring 2002 |
| • Sedimentology (GEOL300), University of Petroleum, Dongying, China               | Fall 2001   |
| • Alternative Energy (ENVT210), University of Petroleum, Dongying, China          | Spring 2001 |

### *Teaching Courses/Workshops Attended*

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|---|------------------|
| • Learning Circle: Why Students Resist Learning? UVU Office of Teaching and Learning                          | Spring 2017      |
| • Hybrid Course Development Workshop, UVU Office of Teaching and Learning                                     | Spring 2017      |
| • UVU faculty visit to NSF, EPA, DOE, UVU Sponsored Program   | May 2016         |
| • Scientific Writing Circle, UVU Office of Teaching and Learning  | Spring 2015      |
| • Learning Circle: How to Design and Teach a Hybrid Course  | Fall 2014        |
| • Early Career Geoscience Faculty: Teaching, Research, and Managing Your Career<br>University of Maryland, MD | June 22-26, 2014 |
| • Engage Your Class in the Nick of Time: Just in Time Teaching,<br>UVU Office of Teaching and Learning        | Spring 2014      |
| • Workshop on High-Impact Science Teaching, UVU SoTE Conference   | Spring 2014      |
| • Teaching Academy (one-year long workshop series)  | 2013-2014        |
| • Cutting Edge Engagement, UVU Office of Teaching and Learning  | March 21, 2014   |
| • FCTE RTP 4-workshop series, UVU Office of Teaching and Learning   | Spring 2014      |
| • SoTE Conference, UVU Office of Teaching and Learning  | Spring 2014      |

- Cutting Edge Workshop: Effective Lecturing, UVU Office of Teaching and Learning Fall 2013
- Workshop on POGIL, UVU Office of Teaching and Learning Fall 2013
- Learning Circle “Facilitating Seven Ways of Learning”, UVU Office of Teaching and Learning Spring 2013
- Cutting Edge Workshop: Using Engaged Teaching to Develop Growth Mindset in Students, UVU Office of Teaching and Learning Spring 2013
- SoTE Conference, UVU Office of Teaching and Learning Spring 2013
- New Faculty Teaching Scholars (11-workshop series), UVU Office of Teaching and Learning 2012-2013
- Learning Circle” Teaching With Your Mouth Shut”, UVU Office of Teaching and Learning Fall 2012
- Cutting Edge Workshop: Creating and Assessing Writing Assignments That Engage Critical Thinking, UVU Office of Teaching and Learning Fall 2012
- Cutting Edge Workshop with Diane Ebert-May, UVU Office of Teaching and Learning Fall 2012
- Turning Point Clicker Training, UVU Office of Teaching and Learning Fall 2012

## **SCHOLARSHIP**

### Research Interests

- Anthropogenic Impact on Wetland/Aquatic Ecosystems, Carbon Dynamics in Wetland Ecosystems, Climate change, Alternative Energy, and Sustainability

### Abstracts/Conference Presentations (\*Student Researcher Mentee Authors)

- **Weihong Wang**, Henintsoa Rakotoarisaona\*, and Hannah Peterson\*. 2017. Investigating Temporal and Spatial Variations of Trace Metal Loading To Utah Lake, UT (USA). Abstract and Oral Presentation. 2017 iUTAH Annual Symposium & Summer All-Hands Meeting.
- **Weihong Wang**. 2017. Assessment of Anthropogenic Impacts on the Utah Lake Ecosystem - Integrating a Multi-Proxy Approach and GIS Spatial Analysis Technique. Abstract and Oral Presentation. Utah Lake Education Workshop.
- Alessandro Zanazzi, Hannah Peterson\*, David Sutterfield\*, Henintsoa Rakotoarisaona\*, Jeremy Andreini\*, and **Weihong Wang**. 2017. A Stable Isotope Study of Utah Lake (Utah, USA). Abstract and Oral Presentation. Geological Society of America Annual Meeting.
- Henintsoa Rakotoarisaona\*, Hannah Peterson\*, and **Weihong Wang**. 2017. Investigating Temporal and Spatial Variations of Trace Metal Loading to Utah Lake using GIS Spatial Analysis Techniques (Utah, USA). Abstract and Oral Presentation. Geological Society of America Annual Meeting.
- Serena Smith\*, Sydney Hoopes\*, Sydney Houghton\*, Daniel Ormond\*, Janelle Gherasim\*, and **Weihong Wang**. 2017. Quantifying Nutrient and Trace Metal Input to Utah Lake from Orem Wastewater Treatment Effluent. Abstract and Poster Presentation. Geological Society of America Annual Meeting.
- Henintsoa Rakotoarisaona\*, Hannah Peterson\*, **Weihong Wang**, and Jeremy Andreini\*. 2017. Investigating Temporal and Spatial Variations of Trace Metal Loading to Utah Lake. Abstract and Oral Presentation. 31<sup>st</sup> National Conference on Undergraduate Research (NCUR).
- Serena Smith\*, Sydney Hoopes\*, and **Weihong Wang**. 2017. Quantifying Nutrient and Trace Metal Input to Utah Lake from Orem Wastewater Treatment Effluent. Abstract and Poster Presentation. The 11<sup>th</sup> Annual Utah Conference on Undergraduate Research (UCUR).
- **Weihong Wang**. 2016. Integrating Geochemistry with GIS Spatial Analysis in Utah Lake Studies. Abstract and Oral Presentation. 10<sup>th</sup> Annual Salt Lake County Watershed Symposium
- **Weihong Wang**. 2016. Temporal and Spatial Fluctuations of Nutrient and Trace Metal Loading to Utah Lake. Abstract and Poster Presentation. 22<sup>nd</sup> EPA National Nonpoint Source (NPS) Monitoring Workshop.
- Hannah Peterson\*, Henintsoa Rakotoarisaona\*, and **Weihong Wang**. 2016. Investigating Trace Metal Loading to Utah Lake. Poster Presentation. Rocky Mountain Section of GSA.
- Hannah Peterson\*, Jeremy Andreini\*, and **Weihong Wang**. 2016. Assessment of Historical Anthropogenic Impacts on the Utah Lake Ecosystem using GIS Spatial Analysis. Abstract and Poster Presentation. Conference on the Scholarship of Teaching and Engagement (SoTE), Utah Valley University.

- Hannah Peterson\*, and **Weihong Wang**. 2016. Temporal and Spatial Variations of Trace Metal Loading to Utah Lake. Abstract and Poster Presentation. The 10<sup>th</sup> Annual Utah Conference on Undergraduate Research (UCUR).
- Kenneth Larson\*, and **Weihong Wang**. 2015. Assessing Geothermal Potential in Utah (USA) and its impact on the Economy and Environment Using GIS Mapping. Abstract and Poster Presentation. Geological Society of America Annual Meeting.
- Hannah Peterson\*, Sheryce Henley\*, Joshua W. Jackson\*, **Weihong Wang**, and Eddy Cadet. 2014. Assessment of Anthropogenic Impacts on the Utah Lake (UT) Using Stable Isotope and Trace Metal Analysis. Abstract and Oral Presentation. Geological Society of America Annual Meeting.
- Paul Robertson\*, Buchanan Kerswell\*, **Weihong Wang**, Suzanne Walther, Greg Carling, Steve Nelson, and Kevin Ray. 2014. Investigating Human Impact on the Jordan River Using Sedimentary and Stable Isotope Records. Abstract and Oral Presentation. Geological Society of America Annual Meeting.
- Henintsoa Rakotoarisaona\*, Kevin W. Jackman\*, Sheryce Henley\*, Joshua W. Jackson\*, Eddy Cadet, **Weihong Wang**, and Suzanne Walther. 2014. Evaluation of the Distribution and Mobility of Selected Trace Metals in Sediments at the Jordan River Water Head of Utah Lake. Abstract and Oral Presentation. Geological Society of America Annual Meeting.
- Buchanan Kerswell\*, Paul Roberson\*, **Weihong Wang**, and Suzanne Walther. 2014. Anthropogenic Impacts on the Utah Lake-Jordan River Transition Zone. Abstract and Oral Presentation. iUTAH All Hands-on Meeting.
- Paul Roberson\*, Buchanan Kerswell\*, **Weihong Wang**, and Suzanne Walther. 2014. Investigating Anthropogenic Impacts on the Utah Lake-Jordan River Transition Zone Using a Multi-proxy Approach. Abstract and Oral Presentation. The 8<sup>th</sup> Annual Utah Conference on Undergraduate Research (UCUR).
- Paul Roberson\*, Buchanan Kerswell\*, **Weihong Wang**, and Suzanne Walther. 2014. Assessment of Anthropogenic Impacts on the Utah Lake. Abstract and Oral Presentation. Conference on the Scholarship of Teaching and Engagement (SoTE). Utah Valley University.
- Buchanan Kerswell\*, and **Weihong Wang**. 2013. Energy Use and Renewable Energy Potentials in U.S.A. Abstract and Oral Presentation. 27<sup>th</sup> National Conference on Undergraduate Research (NCUR).
- Buchanan Kerswell\*, Roxanne Lori Jones\*, and **Weihong Wang**. 2013. Assessment of Energy Use and Renewable Energy Growth Potentials in Utah. Abstract and Oral Presentation. The 7<sup>th</sup> annual Utah Conference on Undergraduate Research (UCUR).

*Publications (\*Student Researcher Mentee Authors)*

- **Weihong Wang**, Suzanne Walther, Eddy Cadet, Greg Carling, Kevin Rey, Steve Nelson, David Tingey, Paul Robertson\*, and Buchanan Kerswell\*. 2017. The Historical Records of Stable Isotopes ( $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$ ) and Trace Metals along Utah Lake –Jordan River Transition Zone, Utah (USA). *In: 2017 Utah Geological Association Guidebook: Geology and Resources of Wasatch - Back to Front*. 46, 171-185.
- **Weihong Wang**, Henintsoa Rakotoarisaona\*, Hannah Peterson\*, Alessandro Zanazzi, and Eddy Cadet. 2017. Investigating Temporal and Spatial Variations of Nutrient and Trace Metal Loading to Utah Lake, Utah, USA. Submitted to *Science of the Total Environment*.
- Zaixing Jiang, Weili Yang, Wenquan Yu, and **Weihong Wang**. 2005. The lake-margin canyon and its hydrocarbon potential. *Earth Science Frontiers*. 12(3), 186-194.
- Yingchang Cao, Zaixing Jiang, and **Weihong Wang**. 2005. Application of Logging Curves in Identifying Northern Ramp Sequence Boundary of Chenjiazhuang Uplift. *Journal of University of Petroleum (Edition of Natural Science)*. 1, 22-25.
- Benqi Zhang, Hongzhou Yu, and **Weihong Wang**. 2005. Characteristics and Diagenetic Environments of Source Rocks by Cathodoluminescence. *Petroleum Exploration and Development*. 30(3), 117-120.
- **Weihong Wang**, Zaixing Jiang, and Yingchang Cao. 2003. Application of Logging Curves in Identifying Northern Ramp Sequence Boundary of Chenjiazhuang Uplift. *Journal of Jiangnan Petroleum Institute*. 25(1), 62-65.
- **Weihong Wang**, Zaixing Jiang, Wenquan Yu, and Jihua Yan. 2003. Discussion of the Methods of Using Logging Curves to Recognize Sequence Boundaries. *Journal of Southwest Petroleum Institute*. 25(3), 1-4.
- **Weihong Wang**, Zaixing Jiang, Mingrong Wu, and Junqing Zhao. 2003. The relationship of sequence stratigraphical units and oil-gas in fault-depressed lacustrine basin. *Xinjiang Geology*. 21(2), 202-205.
- Zaixing Jiang, **Weihong Wang**, and Hongzhong Yu. 2003. The High Resolution Analysis of Stratum Frame in Well Yi 3-7-7. *Petroleum Exploration and Development*. 30(3), 26-28.

- Yingchang Cao, Zaixing Jiang, Weili Yang, and **Weihong Wang**. 2003. Some Methods for Identifying Sequence Boundaries and Condensation Sections Using Well Logging. *Journal of University of Petroleum (Edition of Natural Science)*. 2, 37-41.
- Zaixing Jiang, **Weihong Wang**, and Weili Yang. 2002. The Future of China Petroleum Exploration Strategy in 21st Century. *Journal of the University of Petroleum (Edition of Natural Science)*. 26(2), 1-5.
- **Weihong Wang**, Renfang Pan and Castagna, John P. 2000. Analysis of AVO Anomalies of Shannon Reservoir in Hartzog Draw Field. *Natural Gas Industry*. 20(1), 13-21.

*Grants, Fellowships and Awards*

- Grants for Engaged Learning, Utah Valley University, Principal Investigator, \$10,000 (2017-2018)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Principal Investigator, \$9,183 (2017-2018)
- NSF iUSE-GEOPATH EXTRA: A Praxis Approach to Policy Creation and Student Retention: Rejuvenation of Utah Lake as a Case Study. Co-Principle Investigator (\$300,000). Submitting to NSF in Oct. 2017.
- Undergraduate Research Scholarly and Creative Activities (URSCA) grant, Utah Valley University, awarded to my student mentees Serena Smith and Sydney Hoopes, \$3,000 (2016-2017)
- Undergraduate Research Scholarly and Creative Activities (URSCA) grant, Utah Valley University, awarded to my student mentee Hannah Peterson, \$2,000 (2016-2017)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Awarded to my mentees Sydney Houghton, Sydney Hoopes, and Daniel Ormond, \$1,600 (2016-2017)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Awarded to my mentees Serena Smith, Sydney Hoopes, and Janelle Gherasim, \$2,160 (2016-2017)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Awarded to my mentee Hannah Peterson, \$1,237 (2016-2017)
- NSF EHR: Capitol Reef Environmental Undergraduate Research Cooperative (CREURC). Co-Principle Investigator (\$300,000). Submitted to NSF. Rejected. (2016-2017)
- NSF iUSE-GEOPATH EXTRA: Evaluation of a Geoscience Career Emulation Model for Improving Undergraduate Student Outcomes. Co-Principle Investigator (\$374,034). Submitted to NSF. Rejected. (2016)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, awarded to my student mentee Kenneth Larsen (\$1,406) (2016-2017)
- iUTAH (innovative Urban Transitions and Arid Region Hydro-sustainability) Research Catalyst Grant, funded by the National Science Foundation's EPSCoR program (Experimental Program to Stimulate Competitive Research), Co-Principle Investigator (\$19,826.84) (2015-2017)
- Grants for Engaged Learning Quick Grant, Utah Valley University, Principal Investigator, \$2,500 (2015-2016)
- Undergraduate Research Scholarly and Creative Activities (URSCA) grant, Utah Valley University, awarded to my student mentee Kenneth Larsen, \$2,000 (2015-2016)
- iUTAH (innovative Urban Transitions and Arid Region Hydro-sustainability) Research Catalyst Grant, funded by the National Science Foundation's EPSCoR program (Experimental Program to Stimulate Competitive Research), Principle Investigator (20,000) (2014-2016)
- Undergraduate Research Scholarly and Creative Activities (URSCA) grant, Utah Valley University, awarded to my student mentee Kenneth Larson, \$2,000 (2015-2016)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Principal Investigator, \$5,806 (2015-2016)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Principal Investigator, \$1,156 (2015-2016)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Awarded to my mentees Hannah Peterson and Henintsoa Rakotoarisaona, \$1,026 (2015-2016)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, awarded to my student mentee Jeremy Andreini, \$1,505 (2015-2016)
- General Education Environmental Research Enhancement Project. Submitted to the Department of Education (\$2,046,209). Rejected. (2014-2015)

- Undergraduate Research Scholarly and Creative Activities (URSCA) grant, Utah Valley University, awarded to my student mentee Kenneth Larson, \$2,000 (2014-2015)
- Grants for Engaged Learning, Utah Valley University, Co-Principal Investigator, \$10,000 (2014-2015)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, awarded to my student mentee Hannah Peterson, \$1,670 (2014-2015)
- Travel Grant, Faculty Development Committee, Utah Valley University, \$800 (2014-2015)
- Grants for Engaged Learning, Utah Valley University, Principal Investigator, \$8,700 (2013-2014)
- iUTAH (innovative Urban Transitions and Arid Region Hydro-sustainability) Research Catalyst Grant, funded by the National Science Foundation's EPSCoR program (Experimental Program to Stimulate Competitive Research), Co-Principal Investigator, \$10,000 (2013-2014)
- Scholarly Activities Committee (SAC) Grant, College of Science, Utah Valley University, Principal Investigator, \$2,880 (2013-2014)
- Travel Grant, Faculty Development Committee, Utah Valley University, \$550 (2013-2014)
- Travel Grant, Faculty Development Committee, Utah Valley University, \$800 (2012-2013)
- Global warming impacts on CT salt marsh ecosystems and consequent effects on salt marsh vulnerability to sea level rise, Yale Climate and Energy Institute Seed Grants, Yale University, Co-Principal Investigator, \$50,000 (2009-2010)
- NOAA National Estuarine Research Reserve Graduate Research Fellowship, \$60,000 (2007-2010)
- John Hodge Summer Fellowship, \$500 (2007)
- Slocum-Lunz Grants, \$2,000 (2006-2007)
- University of South Carolina Graduate School Traveling Award, \$500 (2007)
- University of South Carolina Marine Science Program Traveling Award, \$500 (2007)
- University of South Carolina Graduate School Research Fellowship, \$20,000 (2005-2006)
- Torch Fund and Excellent Women Fund (2002)
- Love Angel of Hope Project (2001)
- Creative Award of Academic Research (2000-2001)
- Outstanding Graduate Student Award, Jiangnan Petroleum University (1999-2000)
- Excellent Chairman of News Station, Jiangnan Petroleum University (1999-2000)
- The First Place of Academic Report Competition, Jiangnan Petroleum University (1998-1999)

### Student Mentorship

- I have involved 20+ students in my research projects (see below for projects' titles)
- Student mentees and I have published 20+ meeting abstracts, and have presented our scientific projects in various meetings, such as GSA, NCUR, UCUR, iUTAH All hands-on Meeting, iUTAH Symposium, SoTE, etc.
- I have worked with students to write manuscripts for peer reviewed journals, and two students were the co-authors for a published manuscript.
- I have closely mentored 15+ students. They have achieved high academic standard. Among all my mentees, three of the students have obtained a 3-year NSF scholarship, one has received Research Scholarship by the Salt Lake Chapter of the Association for Women Geoscientists and nominated as one of the finalists for the Utah Women Tech Awards, four of them received URSCA Scholarship, 10+ received SAC award, two were awarded for the 2017 Department Outstanding Student, and two are going to attend graduate school in 2018.

### UVU Research Projects

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|--|-----------|
| • NSF iUSE-GEOPATH EXTRA: A Praxis Approach to Policy Creation and Student Retention: Rejuvenation of Utah Lake as a Case Study (\$300,000). Submitting to NSF in Oct. 2017) | 2018-2021 |
| • Does Water Reveal Wealth? –An Assessment of Water Resources using Geochemical and Geospatial Approaches across a Semiarid Urban Area                                       | 2017-2018 |
| • Assessment of Anthropogenic Impacts on the Utah Lake Ecosystem using Geospatial Analysis and Remote Sensing  | 2016-2017 |
| • Quantifying Nutrient and Trace Metal Input to Utah Lake from Orem Wastewater Treatment Effluent  | 2016-2017 |

- NFS iUSE-EHR: Capitol Reef Environmental Undergraduate Research Cooperative (CREURC). Submitted (\$300,000 for 3 years). Rejected. 2016-2017
- Impact of *Phragmites australis* control on Utah Lake water quality 2016-2017
- NSF iUSE-GEOPATH EXTRA: Evaluation of a Geoscience Career Emulation Model for Improving Undergraduate Student Outcomes. Submitted to NSF. (\$374,034 for 3 years). Rejected. 2015-2016
- Investigating the Environmental Impact of the Gold King Mine Spill (CO) on San Juan River and Lake Powell (UT) 2015-2016
- Investigating Temporal and Spatial Variations of Nutrient and Trace Metal Loading to Utah Lake 2014-2016
- Investigating the Environmental Impact of the Gold King Mine Spill (CO) on San Juan River and Lake Powell (UT) 2015-2016
- General Education Environmental Research Enhancement Project. Submitted to the Department of Education (\$2,046,209). Rejected. 2014-2015
- Assessing Geothermal Potential in Utah (USA) and its Impact on the Economy and Environment Using GIS Mapping 2014-2015
- Investigating PCB and Trace Element Levels in Soil, Plant and Fish Species in Utah Lake 2014-2015
- Assessment of Anthropogenic Impacts on the Utah Lake Wetlands and Fish Species 2013-2014
- Investigating Anthropogenic Impacts on the Utah Lake-Jordan River Transition Zone Using a Multi-proxy Approach 2013-2014
- Assessment of Energy Use and Renewable Energy Growth Potentials in Utah 2012-2013

Research Projects at Other Institutions

- Global Warming Impacts on CT Salt Marsh Ecosystems and Consequent Effects on Salt Marsh Vulnerability to Sea Level Rise  
Yale University 2009-2010
- Investigations of Belowground Carbon Dynamics in East Coast Salt Marshes, USA  
University of South Carolina 2005-2008
- Distinguishing Root from Soil Contributions to Soil Respiration: Exploration of a New Approach  
Iowa State University 2002-2004
- Using Oxygen Stable Isotopes to Study Ecosystem-Atmosphere Gas Exchange  
Iowa State University 2002-2004

**SERVICE**

Committee/Events

- UVU Annual Sustainability Day Committee 2017-present
- Co-editor for 2017 UGA Guidebook Publication 2017
- Department Petrology Hiring Committee 2017
- Chair of Physical Geographer Hiring Committee 2016
- Department Human Geographer Hiring Committee 2015
- Department Lab Manager Hiring Committee 2015
- Text Book Committee 2015
- AAG & ESRI GEOmentor 2014-present
- UVU PREP students outreach Summer 2014
- Earth Day event at UVU Spring 2014
- Moderator at UCUR Spring 2014
- Capstone Thesis Committee 2014
- Annual GIS Day Co-organizer with UVGIS Group 2013-present
- UVU Sustainability Committee 2012-Present
- Guest speaker at the Wasatch Elementary School to give Rock and Mineral Presentations 2012-present

### Invited Talks

- Sustainable Energy in Utah: Past, Present and Future  
1<sup>st</sup> Annual UVU Sustainability Day  
Fall 2017
- Utah Lake Education Day  
Department of Water Quality  
Spring 2016
- Anthropogenic Impact on Utah Lake  
Brigham Young University  
Spring 2015
- Investigating Anthropogenic Impacts on Utah Lake Using a Multi-Proxy Approach  
The Utah Valley University Pre-freshman Engineering Program (UVU PREP)  
Summer 2014
- China at Crossroads: Balancing the Economy and Environment  
25th Annual Symposium on Environmental Ethics  
Utah Valley University  
Spring 2014
- Alternative Energy in the World  
Department of Physics, Utah Valley University  
Spring 2014
- Assessment of Energy Use and Renewable Energy Growth Potentials in Utah  
Ethics Forum for Faculty Research  
Utah Valley University  
Fall 2013
- Investigations of Belowground Carbon Dynamics in East Coast Salt Marshes, USA  
Department of Earth Science  
Utah Valley University  
Spring 2013