Leilani A. Arthurs
Curriculum Vitae
Department of Geological Sciences, University of Colorado at Boulder
Leilani.Arthurs@Colorado.EDU

PROFESSIONAL APPOINTMENTS / EMPLOYMENT

2018-pres.	Assistant Professor of Geological Sciences Department of Geological Sciences University of Colorado at Boulder
2011-2017	Assistant Professor of Earth and Atmospheric Sciences Department of Earth and Atmospheric Sciences University of Nebraska-Lincoln
2010-2011	Assistant Professor of Geology Department of Geology and Geography Georgia Southern University
2007-2010	Science Teaching Fellow Department of Geological Sciences, Science Education Initiative University of Colorado at Boulder
2006-2007	Instructor Center for Social Concerns University of Notre Dame
2002	Instructor of Geology Department of Geology University of Hawai`i at Hilo

EDUCATION

2007	PhD: Civil Engineering and Geological Sciences; Specialty: Environmental Aqueous Geochemistry; University of Notre Dame
2007, 2005, 2004, 2003	Certificates: Excellence in Teaching; University of Notre Dame
2002	B.S.: Geology; with High Honors; University of Hawai`i at Hilo
1997	B.A.: Peace and Conflict Studies; Emphasis: Conflict & Conflict Resolution, with special interest in Environmental Justice; University of California at Berkeley
1996	Certificate: Japan in Today's World; Kyushu University in Japan

SELECTED PUBLICATIONS

Note: *undergraduate student, **graduate student, ***postdoc/researcher

Selected Peer-Reviewed Publications

2020b **Arthurs, L. A.**, Kowalski*, C. M., & Elwonger*, J. M. (2020). "Drawing as a Method to Facilitate Conceptual Change in Earth Sciences Education," *Journal of Astronomy and Earth Sciences Education*, 7(1), 1-23.

2020a **Arthurs**, **L. A.** (2020). "Undergraduate Geoscience Education in Environmental and Water Sciences," In, Maurice, P., ed., *Encyclopedia of Water: Science, Technology, and Society*, John Wiley & Sons, p. 103-112. doi:10.1002/9781119300762.wsts0148

2019b **Arthurs**, **L. A.** (2019). "Using student conceptions about groundwater as resources for teaching about aquifers," *Journal of Geoscience Education*, 67(2), 161-173.

2019a **Arthurs**, **L. A.** (2019). "Undergraduate geoscience education research: Evolution of an emerging field of discipline-based education research," *Journal of Research in Science Teaching*, 56(2), 118-140.

SELECTED AWARDS & GRANTS

05/01/21 – 04/30/24. Advisory Board Member, Collaborative Research - Characterization and Training of Spatial Skills in Hydrogeology. NSF-CyberTraining; $149,103; Peggy McNeal (PI), Towson University.

10/01/19 – 09/30/21. Co-PI, Cybertraining for Earth Surface Process Modelers. NSF-CyberTraining; $904, 694; Irina Overeem (PI), University of Colorado at Boulder.

10/01/18 – 09/30/23. PI, Promoting Research-based Instructional Methods for Enhancing and Reforming STEM Education (PRIMERS). NSF-IUSE; $2,364,890; University of Colorado at Boulder

SELECTED INVITED TALKS AND WORKSHOPS

2020 **L. Arthurs** "*Zoom* Options for Engaging Students: Teaching Synchronously Online," Astronomical Society of the Pacific; Online/Virtual, SC 2020-12-05 (talk)

2020 **L. Arthurs** "Drawing on the Learning Sciences to Improve Water Sciences Education," Clemson University; Online/Virtual, SC 2020-11-06 (talk)

2020 **L. Arthurs** "Career Options with STEM & STEM Education Training," University of Wyoming; Online/Virtual, WY 2020-09-28 (discussion)

2020 **L. Arthurs** "The Life & Legends of Hawai`i's Kilauea Volcano," Flatirons Mineral Club; Boulder, CO 2020-02-14 (talk)

SELECTED CONFERENCE PRESENTATIONS

Note: *undergraduate, **graduate, ***postdoc/researcher

2020 **L. Arthurs**, S. Baumann**, J. Rice*, and S. Litton*, "What We Know about Map-Reading Skill," GSA Abstracts with Programs Vol. ##, No. ##, ISSN ##, GSA Fall Meeting, Online, 2020-10-30

2020 C. Kowalski*** and **L. Arthurs**, "How Drawing Activities are Implemented to Enhance STEM Learning in Undergraduate Classrooms," GSA Abstracts with Programs Vol. ##, No. ##, ISSN ##, GSA Fall Meeting, Online, 2020-10-30

2020 C. Mueller** and **L. Arthurs**, "An Ecological Model to the Ecology of Bridge Programs: Positive Structures for Student Development, Recruitment, and Retention in STEM," GSA Abstracts with Programs Vol. ##, No. ##, ISSN ##, GSA Fall Meeting, Online, 2020-10-30

2020 C. Wilfong** and **L. Arthurs**, "Barriers to Student-Centered Learning Techniques," GSA Abstracts with Programs Vol. ##, No. ##, ISSN ##, GSA Fall Meeting, Online, 2020-10-30

SELECTED COURSES TAUGHT

Undergrad-intro: Physical Geology, Environmental Justice and Human Rights in the Aftermath of Hurricane Katrina, Global Change, Environmental Geology, Exploring Earth for Scientists
Undergrad-upper/Graduate-level: Water-Rock Interactions, Chemistry of Natural Waters
Graduate-level: Teaching and Learning in Post-Secondary STEM Education