

## **Christopher L. Atchison, Ph.D.**

Associate Professor of Geoscience Education | College of Education, Criminal Justice and Human Services  
Affiliate Graduate Faculty | Department of Geology | McMicken College of Arts and Sciences  
University of Cincinnati, Cincinnati, Ohio, USA

### **EDUCATION**

- Ph.D. Science Education, The Ohio State University, Columbus, Ohio, June 2011. Dissertation, “The significance of access: Students with mobility impairments constructing geoscience knowledge in field-based learning experiences” (Chair, Karen Irving).
- M.S. Geology/Education, Wright State University, Dayton, Ohio, June 2004. Thesis, “Tools for everyday approaches to science: A model curriculum of magnetism and technology for the middle school student” (Chair, Ernest Hauser).
- B.S. Geology, Wright State University, Dayton, Ohio, August 2002.
- A.S. Physics, Sinclair Community College, Dayton, Ohio, March 2001.

### **PROFESSIONAL AFFILIATION**

- 2017 - present Associate Professor of Geoscience Education, School of Education; Graduate Faculty Affiliation, Department of Geology, University of Cincinnati, Cincinnati, Ohio
- 2014 - 2017 Assistant Professor of Geoscience Education, School of Education; Graduate Faculty Affiliation, Department of Geology, University of Cincinnati, Cincinnati, Ohio
- 2013 - 2014 Graduate Faculty Affiliation, Department of Middle and Secondary Education, Georgia State University, Atlanta, Georgia
- 2011 - 2014 Assistant Professor of Geosciences, Department of Geosciences, Georgia State University, Atlanta, Georgia
- 2010 - 2011 Graduate Research Assistant, Ohio Supercomputer Center, Columbus, Ohio
- 2008 - 2009 Instructional Designer, Ohio Supercomputer Center, Columbus, Ohio
- 2004 - 2008 Educational Technology Consultant / Online Course Facilitator, eTech Ohio, Columbus, Ohio
- 2003 - 2006 Middle School Science Teacher, Northridge Local Schools, Dayton, Ohio

### **Awards and Honors**

- 2017 Public Choice Award, *The Impact of Inclusion: Designing accessible field-based learning in the Geosciences*, 2017 NSF STEM for All Video Showcase
- 2016 Selected Top Geoscience Paper of 2016 by the Geological Society of America: Atchison & Libarkin, 2016, *Professionally held perceptions about the accessibility of the geosciences*. Online at: <https://speakingofgeoscience.org/2016/12/22/top-geoscience-papers-from-2016/>
- 2016 Outstanding Paper Award, Journal of Geoscience Education: Callahan, Libarkin, McCallum, and Atchison, 2015, *Using the Lens of Social Capital to Understand Diversity in the Earth System Sciences Workforce*
- 2016 Golden Apple Award, Excellence in Teaching and Student-Faculty Relations, University of

- Cincinnati, College of Education, Criminal Justice and Human Services (CECH)
- 2013 Nomination for Outstanding Reviewer Award, Journal of Geoscience Education
- 2012 Favorite Faculty Award, Christian Faculty Forum, CRU, The Impact Movement, Intervarsity, and the Fellowship of Christian Athletes, Georgia State University
- 2010 Best Student Paper Award, Geology and Society Division, Geological Society of America

## SCHOLARSHIP

**\*graduate students, \*\*undergraduate students**

### Peer-Reviewed Journal Articles and Book Chapters

McCallum, C.M., Libarkin, J.C., Callahan, C.N. & Atchison, C.L. (*accepted*). Mentoring, social capital, and diversity in Earth System Science. *Journal of Women and Minorities in Science and Engineering, Manuscript #JWM-18878*.

\*Carabajal, I.G., \*Marshall, A.M., & Atchison, C.L. (*accepted*). A synthesis of access and inclusion in geoscience education literature. *Journal of Geoscience Education, Manuscript #16-211*.

\*\*Hendricks, J.E., Atchison, C.L., and Feig, A.D. (2017). Effective use of personal assistants for students with disabilities: Lessons learned from the 2014 accessible geoscience field trip. *Journal of Geoscience Education, 65*(1), 72-80. DOI: <http://dx.doi.org/10.5408/16-185.1>.

Atchison, C.L. & Libarkin, J.C. (2016). Professionally held perceptions about the accessibility of the geosciences. *Geosphere, 12*(4), 1-12. DOI:10.1130/GES01264.1.

Gilley, B.H., Atchison, C.L., Feig, A. & Stokes, A. (2015). Impact of inclusive field trips. *Nature Geoscience, 8*, 579-580. DOI: 10.1038/ngeo2500.

Callahan, C.N., Libarkin, J.C., McCallum, C.M. & Atchison, C.L. (2015). Using the lens of social capital to understand diversity in the earth system sciences workforce. *Journal of Geoscience Education, 63*(2), 98-104. DOI: <http://dx.doi.org/10.5408/15-083.1>

Hawthorne, T., Solis, P., \*Terry, B., Price, M. & Atchison, C.L. (2014). Critical reflection mapping as a hybrid methodology for examining socio-spatial perceptions of new research sites. *The Annals of the Association of American Geographers, 105*(1), 22-47. DOI: 10.1080/00045608.2014.960041.

Darby, K. & Atchison, C.L. (2014). Environmental Justice: Insights from an interdisciplinary instructional workshop. *Journal of Environmental Studies and Sciences*, DOI: 10.1007/s13412-014-0191-y.

Hawthorne, T., Atchison, C.L. & \*LangBruttig, A. (2014). Community geography as a model for international research experiences in study abroad programs. *The Journal of Geography in Higher Education, 38*(2), 219-237, DOI: 10.1080/03098265.2014.908351.

Atchison, C.L. & Libarkin, J.C. (2013). Fostering accessibility in geoscience training programs. *EOS Transactions, American Geophysical Union, 94*(44), 400. DOI: 10.1002/2013EO440005.

Atchison, C.L. & Martinez-Frias, J. (2012). Inclusive geoscience instruction. *Nature Geoscience, 5*, 366. DOI: 10.1038/ngeo1487.

Atchison, C.L. & Feig, A.D. (2011). Theoretical perspectives on constructing experience through alternative field-based learning environments for students with mobility impairments. In A. D. Feig & A. Stokes

(Eds.), *Qualitative Inquiry in Geoscience Education Research*. Geological Society of America Special Paper 474, 11-21, DOI: 10.1130/9780813724744.

### **Editor Reviewed Journals and Book Chapters**

Atchison, C.L. & Carnahan, C.R. (*accepted*). *Preparing tomorrow's teachers through first-hand perspectives of ability in an inclusively-designed science methods course*. In M.H. Koomen, S. Kahn, C.L. Atchison, and T. Wild (Eds.) *Toward Inclusion of all Learners through Science Teacher Education*. Boston, MA: Sense Publishers.

De Paor, D.G., Karabinos, P., Dickens, G.T., & Atchison, C.L. (2017). Color vision deficiency and geoscience illustrations. *GSA Today*, 27, DOI: 10.1130/GSATG322GW.1

Atchison, C.L., Koomen, M.H., Smetana, L.K. & \*Ceylan, J.M. (2014). Differentiation in the science classroom. In Morrell, P.D., & Popejoy, K. (Eds.) (2014). *A few of our favorite things: Teaching ideas for K-12 science methods instructors*. Boston, MA: Sense Publishers.

Duerstock, B., McDonagh, D., Thomas, J., Cooper, R., Goldberg, M., Quamar, A., Supalo, C., Wulle, B., Kirshner, J., Atchison, C.L. & \*Border, J. (2014). *Technologies to facilitate active participation and independence of persons with disabilities in STEM from college to careers*. In B.S. Duerstock and C.A. Shingledecker (Eds.) *From College to Careers: Fostering Inclusion of Persons with Disabilities in Science, Technology, Engineering and Mathematics (STEM) Careers*. American Association for the Advancement of Science, Science. Washington, D.C.

### **Editorials, Reports, and Other Non-Reviewed Publications**

Atchison, C.L. & Gilley, B.H. (2015). Geology for everyone: Making the field accessible. *Earth*. American Geosciences Institute, Alexandria, VA, September, 24-33.

Stokes, A. & Atchison, C.L. (2015). Getting out more: Diverse perspectives on accessible geoscience fieldwork, *Geoscientist*. Geological Society of London. 25(4), 16-19.

Atchison, C.L. & Houlton, H. (2014). The geoscience community behind the first fully-accessible GSA field trip. *GeoSpectrum*. American Geosciences Institute, Alexandria, VA. Fall 2014, 68-69.

Atchison, C.L. (2014). Integrating perspectives: Bringing geoscience instructors and students with disabilities together in a field-based workshop focused on accessibility. *Foundations*. National Association for Geoscience Teachers, 3(2), 14-15.

### **Manuscripts in Review**

Feig, A., Atchison, C.L., Stokes, A. & Gilley, B.H. (*in review*). Achieving inclusive field-based education: Results and recommendations from an accessible geoscience field trip. *Journal of the Scholarship of Teaching and Learning*, Manuscript #23455.

### **Manuscripts in Preparation**

Koomen, M.H., Kahn, S., Atchison, C.L., & Wild, T. (Eds.) (*in preparation*). *Toward Inclusion of all Learners through Science Teacher Education*. Boston, MA: Sense Publishers.

Kroeger, S., Johnson, H., Atchison, C.L., & Gregson, S. (*in preparation*). University of Cincinnati's Dual License for Middle Childhood Educators in Ohio: Developing Integrated Inclusive Content and Pedagogy. In S. Kroeger, B. Hansen, C. Faiella, & A. Howley (Eds.) *Inclusive Educational Practice*. Charlotte, NC: Information Age Publishing.

Atchison, C.L. (*in preparation*). Designing inclusive communities of learning in field-based geoscience courses.

### **Invited Presentations**

Atchison, C.L. (2016). *The role of minority science societies: The International Association for Geoscience Diversity*. Plenary Presentation on Recruiting and Broadening Participation at the GEO REU Workshop, Boulder, CO, September 21-23.

Atchison, C.L., Whitmeyer, S.J., Piatek, J.L., Marshall, A.M., Carabajal, I.G., Pyle, E.J., De Paor, D. & Eriksson, S.C. (2016). *Expanding access to field-based learning through the use of mobile technologies and mixed-ability student grouping*. Invited presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 48, No. 7. Denver, CO, September 25-28. doi: 10.1130/abs/2016AM-282315  
Available online at: <https://gsa.confex.com/gsa/2016AM/webprogram/Paper282315.html>

Whitmeyer, S.J., Pyle, E.J., De Paor, D., Atchison, C.L., Bentley, C., & Piatek, J.L. (2016). *Digital technologies that enhance teaching and learning in classroom and field environments*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 48, No. 7. Denver, CO, September 25-28. doi: 10.1130/abs/2016AM-282293  
Available online at: <https://gsa.confex.com/gsa/2016AM/webprogram/Paper282293.html>

Atchison, C.L. (2016). *An evaluation of instructional barriers in field-based learning environments and the impact on workforce development*. Invited keynote presentation at the Advancing Individual Differences Research on STEM Learning Opportunities Conference. American Educational Research Association (AERA), Santa Barbara, CA, January 13-15.

Atchison, C.L. (2015). *Consensus? Deconstructing the AGI statement on access and inclusion*. Invited presentation at the Joint AGI/GSA Societies Meeting, Baltimore, MD, November 2.

Atchison, C.L. (2015). *Challenging traditional models of field-based instruction in the Geosciences with inclusively-designed strategies*. Invited presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 47, No. 7. Baltimore, MD, November 1-4.  
Available online at: <https://gsa.confex.com/gsa/2015AM/webprogram/Session37683.html>

Atchison, C.L. (2015). *Defining rigor in inclusive field-based instruction*. Invited presentation at the British Ecological Society. London, England, United Kingdom, September 8.

Atchison, C.L. (2015). *An international perspective of inclusive geoscience workforce development in the 21<sup>st</sup> century*. Invited Colloquium in the Department of Earth, Ocean & Atmospheric Sciences, The University of British Columbia, Vancouver, Canada, September 24.

Atchison, C.L. (2015). *Fostering an international initiative to mitigate the barriers of full participation for geoscience students and practitioners with disabilities*. Invited presentation at the Knowledge Media Institute, The Open University, Milton Keynes, England, United Kingdom, June 29. Recording available online at: <http://stadium.open.ac.uk/stadia/preview.php?whichevent=2527#.VXibtPnBzRY>

Atchison, C.L. (2015). *Rigor does not promote retention: Challenging traditional models of field-based instruction in the geosciences*. Invited keynote presentation at the Confronting Barriers to Inclusion: Opening the Gate to Accessible Fieldwork conference. Higher Education Network, The Geological Society. London, England, United Kingdom, June 26. Available online at: <http://www.geolsoc.org.uk/Events/Past-Meeting-Resources/Confronting-Barriers-to-inclusion-opening-the-gate-to-accessible-fieldwork>.

Recording available online at: <https://www.youtube.com/embed/cBBrZnrH9ts>

Atchison, C.L., Feig, A.D., Gilley, B.H., Stokes, A. & Hendricks, J. (2015). *Confronting barriers of inclusivity: Planning and implementing an accessible Geoscience field course for students with disabilities*. Invited paper presentation at the National Association for Research in Science Teaching (NARST) International Conference. Chicago, IL, April 11-14. Available online at: [http://www.narst.org/annualconference/2015\\_final\\_program.pdf](http://www.narst.org/annualconference/2015_final_program.pdf)

Atchison, C.L. (2015). *Broad participation and the advancement of the STEM workforce*. AccessEngineering Capacity Building Institute, Seattle, WA, April 10. Available online at: <http://www.washington.edu/doit/building-capacity-increase-participation-people-disabilities-engineering>

Atchison, C.L. & Libarkin, J.C. (2014). *How accessible are the geosciences? A study of professionally held perceptions and what they mean for the future of geoscience workforce development*. Invited technical presentation at American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 15-19. Available online at: <https://agu.confex.com/agu/fm14/meetingapp.cgi#Session/1565>

Atchison, C.L. (2014). *Identifying the barriers of within your organization*. Invited presentation at the Geosciences Leadership Forum “Accommodating Geoscience Workforce Diversity: Including the Talents of All Geoscientists.” American Geosciences Institute (AGI). Arlington, VA, September 15. Available online at: <http://www.americangeosciences.org/events/agi-leadership-forum-2014-2014-09-15-090000>

Atchison, C.L. and Houlton, H. (2014). *Developing an accessible geoscience workforce through inclusive training opportunities*. Invited presentation at the Geosciences Leadership Forum “Accommodating Geoscience Workforce Diversity: Including the Talents of All Geoscientists.” American Geosciences Institute (AGI). Arlington, VA, September 15. Available online at: <http://www.americangeosciences.org/events/agi-leadership-forum-2014-2014-09-15-090000>

Atchison, C.L. (2014). *Establishing an inclusive perspective in undergraduate programming*. Keynote presentation at the GEO REU Workshop 2014. University Corporation for Atmospheric Research (UCAR). Boulder, CO, March 20.

Atchison, C.L. (2013). *The IAGD: Advancing access to geoscience training and research for students and geoscientists with disabilities*. Department of Geological Sciences Seminar Series, Michigan State University, East Lansing, MI, October 18.

Atchison, C.L. (2013). *Using interactive geospatial simulation to extend access to training in remote field environments*. CREATE for STEM Institute Seminar Series, Michigan State University, East Lansing, MI, October 16. Available online at: <http://create4stem.msu.edu/event/chris-atchison-georgia-state-university/1307>.

Atchison, C.L. (2013). *Broad participation and the advancement of the STEM workforce*. National Science Foundation, Arlington, VA, June 5.

Atchison, C.L. (2013). *Using interactive simulation to extend access to training in remote field environments*. TiER 1 Performance Solutions, Covington, KY, March 21.

Atchison, C.L. (2013). *NSF OEDG project report*. Research on Disabilities Education (RDE) Projects Community Audio Conference. March 14.

Atchison, C.L. & Ceylan, G.M. (2013). *International expansion of access, accommodation, and inclusion in the geosciences*. Invited presentation in the themed paper set: *Students with Disabilities in the Geological Sciences: Promoting Equity through Access, Self-efficacy, Autonomy, and Inquiry* at the 2013 Association for Science Teacher Education International Conference, Charleston, SC, January 10-12. Available online at:  
<http://theaste.org/meetings/2013conference/ASTE2013PreliminaryProgram.pdf>

Atchison, C.L. (2012). *Perseverance, regardless of perspective and ability*. Featured presentation at the 2012 eTech Ohio Educational Technology Conference, Columbus, OH, February 13. Available online at: <http://m.guidebook.com/guide/660/event/139758/>. Video recording available online at: <http://www.vid.etechohio.net/tcs/?id=0B7C08EF-56B3-4AC7-A8C6-10FAA416F6F6>

Atchison, C.L. & Stredney, D. (2011). *OEDG project update*. Directorate for Geosciences (GEO) Advisory Committee, National Science Foundation, Arlington, VA, October 14.

### **Panel Presentations - Invited**

Atchison, C.L. (2017). *Cross-disciplinary perspectives of creating inclusive scientific communities*. Panel presentation at the *Creating Inclusive Environments at Conferences* panel (A. Knowles, C. Atchison, J. Bailey, and R. Barthelemy) at the 2017 American Association of Physics Teachers (AAPT) Winter Meeting, Atlanta, GA, February 18-21. Available online at:  
[https://www.aapt.org/Conferences/WM2017/upload/program\\_online.pdf](https://www.aapt.org/Conferences/WM2017/upload/program_online.pdf)

Atchison, C.L., Selzer, R., & Odum, T. (2016). *Teaching for equity and inclusion*. Panel presentation and workshop for the Center for Enhancement of Teaching and Learning (CET&L), University of Cincinnati. Cincinnati, OH, December 8.

Atchison, C.L., Dounas-Frazer, D., Laursen, S., Williams, M. (2016). *Diversity and Inclusion in STEM*. Panel presentation at the Career Development Workshop for NSF Geoscience Postdoctoral Researchers. National Center for Atmospheric Research (NCAR), Boulder, CO, March 10.

Atchison, C.L., Dispenza, F. & Shapiro, D. (2013). *Accessible science, technology, engineering and mathematics for individuals of all abilities*. Panel presentation at the Disability Engagement Symposium: Career Conversations, Georgia State University, Atlanta, GA, October 23.

Atchison, C. L., Li, J. & Wang, H. (2013). *Reciprocation of justice: Inclusion of marginalized populations in environmental awareness*. Panel presentation at the 2013 Teaching Environmental Justice: Interdisciplinary Approaches InTeGrate Workshop, Carleton College, Northfield, MN, April 14-16. Available online at: <http://serc.carleton.edu/integrate/workshops/envirojustice2013/program.html>

Davis, R.L., Kure, D., Gilles, B., McGowan, R. & Atchison, C.L. (2012). *Active learning and accessibility: Inclusion of all physical abilities*. Panel presentation at the 2012 American Camp Association National Conference, Atlanta, GA, February 21-24.

### **Conference Presentations**

Carabajal, I.G. & Atchison, C.L. (2017). *Access and inclusion from the perspective of current departmental practice*. Poster presentation at the Earth Educators Rendezvous. Albuquerque, NM, July 17-21. Available online at:  
[http://serc.carleton.edu/earth\\_rendezvous/2017/program/posters/wednesday/180119.html](http://serc.carleton.edu/earth_rendezvous/2017/program/posters/wednesday/180119.html)

Stokes, A. & Atchison, C.L., Feig, A.D. & Gilley, B.H. (2017). *Delivering accessible fieldwork: Preliminary findings from a collaborative international study*. Poster presentation at the European

- Geosciences Union (EGU) General Assembly, Vol. 19, EGU2017-6444, Vienna, Austria, April 23-28. Available online at: <http://meetingorganizer.copernicus.org/EGU2017/EGU2017-6444.pdf>
- Carabajal, I.G. & Atchison, C.L. (2017). *Preliminary findings of field-based accessibility from the perspective of U.S. geoscience departments*. Oral presentation at the 2017 College of Education, Criminal Justice, and Human Services Diversity Matters Research Day. University of Cincinnati, January 26, 2017.
- Kahn, S., Kooman, M., Atchison, C.L., Summy, S., Lederman, J.S., Shume, T., Porter, J.M., & Herbert, T. (2017). *Toward Inclusion of All Learners through Science Teacher Education*. Roundtable Presentation at the 2017 Association for Science Teacher Education (ASTE) International Meeting. Des Moines, IA, January 12-14. Available online at: <http://theaste.org/wp-content/uploads/2016/01/1.13.17-ASTE-Program.pdf>
- Myrbo, A., Alexander, S., Atchison, C.L. & Carabajal, I. (2016). *Developing a fully accessible field camp*. Social Dimensions of Geoscience Pop-Up Session presentation at American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 12-16. Available online at: <https://fallmeeting.agu.org/2016/students/events/pop-up-talks/social-dimensions-pop-up-session/>
- Carabajal, I.G. & Atchison, C.L. (2016). *Preliminary findings of field-based accessibility from the perspective of U.S. geoscience departments*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 48, No. 7. Denver, CO, September 25-28. doi: 10.1130/abs/2016AM-282314  
Available online at: <https://gsa.confex.com/gsa/2016AM/webprogram/Paper282314.html>
- Piatek, J.L., Thomas, C., Todd, A.C., Pritchard, C.E., Morris, M., Whitmeyer, S.J., Atchison, C.L., Eriksson, S.C., Marshall, A.M., Carabajal, I.G., & Pyle, E.J. (2016). *Expanding access to field-based learning through the use of mobile technologies and mixed-ability student grouping*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 48, No. 7. Denver, CO, September 25-28. doi: 10.1130/abs/2016AM-285445  
Available online at: <https://gsa.confex.com/gsa/2016AM/webprogram/Paper285445.html>
- Callahan, C.N., Libarkin, J.C., McCallum, C.M. & Atchison, C.L. (2016). *Leveraging relationships in your internship experience*. Online presentation during Orientation Week, IRIS Internship Program, New Mexico Institute of Mining and Technology (NMT), Socorro, NM, June 2.
- Atchison, C.L., Carnahan, C., & Tagg, K. (2016). *Preparing tomorrow's teachers through first-hand perspectives of ability in an inclusively-designed science methods course*. Paper presentation at the Association for Science Teacher Education (ASTE), Reno, NV, January 7-9. Available online at: <http://theaste.org/wp-content/uploads/2015/01/ASTE-2016-Final-DRAFT-Dec-30.pdf>
- Atchison, C.L. & Houlton, H. (2015). *Enhancing access and inclusion in the Geosciences through international community engagement*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 47, No. 7. Baltimore, MD, November 1-4. Available online at: <https://gsa.confex.com/gsa/2015AM/webprogram/Session37916.html>
- Callahan, C.N., Libarkin, J.C., McCallum, C.M. & Atchison, C.L. (2015). *The relationship between trust in mentor and career satisfaction in the Earth system sciences*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 47, No. 7. Baltimore, MD, November 1-4. Available online at: <https://gsa.confex.com/gsa/2015AM/webprogram/Session37899.html>

- Tagg, K., Perkins, N., Anderson, R. & Atchison, C.L. (2015). *The impact of collaborating with students with disabilities in an inclusively-designed science methods course*. Paper presentation at the Mid-Atlantic Association for Science Teacher Education (ASTE), Lore City, OH, October 22-24. Available online at: <http://ma.theaste.org/meetings/2015-mid-atlantic-aste-regional-conference/>
- Esch, M. & Atchison, C.L. (2015). *The science of teaching pre-service teachers how to integrate technology into their classrooms*. Paper presentation at the Mid-Atlantic Association for Science Teacher Education (ASTE), Lore City, OH, October 22-24. Available online at: <http://ma.theaste.org/meetings/2015-mid-atlantic-aste-regional-conference/>
- Callahan, C.N., Libarkin, J.C., McCallum, C.M. & Atchison, C.L. (2015). *Social capital theory as framework for studying diversity in geosciences*. Geo-Needs: Stakeholder Needs Assessments for Broadening Participation in the Geoscience Workforce. Naperville, IL, August 9-11. Available online at: [http://serc.carleton.edu/geoneeds/Education\\_Researcher\\_Agenda.html](http://serc.carleton.edu/geoneeds/Education_Researcher_Agenda.html)
- Paradis, C., Atchison, C.L., Feig, A.D., Gilley, B.H. & Stokes, A. (2015). *The impact of inclusion: A student's perspective of participating in a fully-accessible geoscience field course*. Paper presentation at the Earth Educator's Rendezvous. Boulder, CO, July 13-17. Available online at: [http://serc.carleton.edu/earth\\_rendezvous/2015/program\\_table/abstracts/100687.html](http://serc.carleton.edu/earth_rendezvous/2015/program_table/abstracts/100687.html)
- Hendricks, J. & Atchison, C.L. (2015). *The intersection of disability and environment: A case study of two individuals on an accessible earth science fieldtrip*. Poster presentation at the Association on Higher Education and Disability (AHEAD) Conference. St. Paul, MN, July 13-18.
- Gilley, B.H., Atchison, C.L., Feig, A.D. & Stokes, A. (2015). *Full access to the Sea-to-Sky Highway: Offering an accessible field trip*. National Association for Geoscience Teachers Pacific Northwest Section 2015 Annual Conference. Victoria, British Columbia, June, 15.
- Hendricks, J. & Atchison, C.L. (2015). *Effective strategies for assisting individuals with disabilities in multiple learning environments*. Poster presentation at the Multiple Perspectives on Access, Inclusion & Disability Conference. Columbus, OH, April 13.
- Stokes, A., Atchison, C.L., Feig, A.D. & Gilley, B.H. (2015). *Delivering accessible fieldwork: Preliminary findings from a collaborative international study*. Technical presentation at Geological Society Higher Education Network (HEN) Annual Meeting: Sharing Education Practices in the Geosciences. Plymouth University, Plymouth, United Kingdom, January 21-22. Available online at: <https://www.plymouth.ac.uk/whats-on/geological-society-conference-sharing-educational-practice-in-the-geosciences>
- Atchison, C.L., Feig, A.D., Gilley, B.H. & Stokes, A. (2014). *Preliminary findings from an accessible field course developed through international collaboration*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 46, No. 6, p.0. Vancouver, British Columbia, Canada, October 19-22. Available online at: <https://gsa.confex.com/gsa/2014AM/webprogram/Paper242930.html>. Recorded and captioned at: <https://www.youtube.com/watch?v=MWiefP5cagg>
- Atchison, C.L., Lemon, N., Hittle, B., Toomey, R.S., Price, A., Irving, K.E., Kerwin, T. & Stredney, D. (2013). *Providing interactive access to cave geology for all students, regardless of physical ability*. Poster presentation at American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 9-13.



- Atchison, C.L., Hittle, B., Stredney, D., Irving, K.E., Toomey, R.S., Price, A. & Kerwin, T. (2013). *Utilizing LIDAR to simulate Mammoth Cave National Park in an interactive virtual environment*. Digital Poster presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 45, No. 7, p.146. Denver, CO, October 27-30. Available online at: <https://gsa.confex.com/gsa/2013AM/webprogram/Paper230673.html>
- Atchison, C.L. (2013). *Broadening the perspective of geoscience diversity in workforce development*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 45, No. 7, p. 239. Denver, CO, October 27-30. Available online at: <https://gsa.confex.com/gsa/2013AM/webprogram/Paper231726.html>
- Lemon, N.N., Atchison, C.L., Hittle, B., Irving, K.E., Toomey, R.S., Price, A., Kerwin, T. & Stredney, D. (2013). *Employing virtual environments to promote diversity and impart a historical perspective to the geoscience curriculum: An integrated approach*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 45, No. 7, p. 239. Denver, CO, October 27-30. Available online at: <https://gsa.confex.com/gsa/2013AM/webprogram/Paper231795.html>
- Judy, K.A. & Atchison, C.L. (2013). *Promoting a consortium of accessible geoscience field courses*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 45, No. 7, p.239. Denver, CO, October 27-30. Available online at: <https://gsa.confex.com/gsa/2013AM/webprogram/Paper231673.html>
- Atchison, C.L., Stredney, D., Irving, K.E., Toomey, R.S., Price, A., Kerwin, T., Hittle, B. & Reed, P.J. (2013). *Using interactive simulation to extend access to learning along the historic tour route of Mammoth Cave National Park*. 10th Mammoth Cave Research Symposium, Mammoth Cave National Park, KY, February 14-15. Program found online at: <http://brimsbg.org/wp-content/uploads/2013/02/Symposium-Proceedings.pdf>
- Atchison, C.L., Stredney, D., Irving, K.E., Toomey, R.S., Price, A., Kerwin, T., Hittle, B. & Reed, J.P. (2012). *Overcoming physical barriers to provide cave and karst field experiences through the multiple representation of virtual reality*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 44, No. 7. Charlotte, NC, November 4-9. Available online at: [https://gsa.confex.com/gsa/2012AM/finalprogram/abstract\\_212813.htm](https://gsa.confex.com/gsa/2012AM/finalprogram/abstract_212813.htm)
- Gilley, B.H., Atchison, C.L. & Ceylan, G.M. (2012). *Lessons learned from developing workshops and programming for inclusive teaching*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 44, No. 7. Charlotte, NC, November 4-9. Available online at: [https://gsa.confex.com/gsa/2012AM/finalprogram/abstract\\_213429.htm](https://gsa.confex.com/gsa/2012AM/finalprogram/abstract_213429.htm)
- Libarkin, J.L. & Atchison, C.L. (2012). *Geoscientists' perceptions of people with disabilities*. Technical presentation at Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 44, No. 7. Charlotte, NC, November 4-9. Available online at: [https://gsa.confex.com/gsa/2012AM/finalprogram/abstract\\_211733.htm](https://gsa.confex.com/gsa/2012AM/finalprogram/abstract_211733.htm)
- Martin-Hansen, L.M. & Atchison, C.L. (2012). *Melding science and science education courses through collaborative teaching*. Poster presentation at the North Central Association for Science Teacher Education (ASTE), Cedar Rapids, IA, October 11-14.
- Atchison, C.L. (2012). *The International Advisory for Geoscience Diversity (IAGD): Advancing access and inclusion to the geosciences for students with disabilities*. Paper presentation at the 34<sup>th</sup> International

- Geoscience Congress (IGC). Brisbane, Australia. August 5-10. Available online at:  
[http://www.34igc.org/FileLibrary/tuesday\\_0001.pdf](http://www.34igc.org/FileLibrary/tuesday_0001.pdf)
- Martin-Hansen, L.M. & Atchison, C.L. (2012). *Policies and practices of collaboratively teaching a geoscience course for future educators*. Paper presentation at the Science and Mathematics Teacher Imperative (SMTI) 2012 National Conference. Washington, DC. June 6-8. Available online at:  
<http://www.aplu.org/page.aspx?pid=2350>
- Atchison, C.L. (2012). *Field-based geoscience education for students with physical disabilities*. Paper presentation at the National Association for Research in Science Teaching (NARST) International Conference. Indianapolis, IN, March 25-28. Available online at:  
[http://www.narst.org/annualconference/2012\\_full\\_abstracts.pdf](http://www.narst.org/annualconference/2012_full_abstracts.pdf)
- Atchison, C.L. & Stredney, D. (2011). *Expanding geoscience diversity through simulated field environments for students with physical disabilities*. Poster presentation at the NSF OEDG Geoscience Diversity Workshop, American Institutes for Research, Washington, DC, October 15-16. Program found online at: <http://www.coe.uga.edu/saste/conference-program/>
- Martin-Hansen, L.M. & Atchison, C.L. (2011). *Pedagogical modeling in a collaboratively taught university geoscience course*. Poster presentation at the Southeastern Association for Science Teacher Education (ASTE), Athens, GA, October 14-15.
- Atchison, C. L. (2011). *Introduction of the International Advisory for Geoscience Diversity (IAGD)*. Technical presentation at the Geological Society of America (GSA) Annual Meeting, *Abstracts with Programs*, Vol. 43, No. 5. Minneapolis, MN, October 9-12. Available online at:  
[http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_196785.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_196785.htm)
- Atchison, C. L. (2011). *Geologic field experience for students with mobility impairments*. Poster presentation at the Multiple Perspectives on Access, Inclusion & Disability Conference. Columbus, OH, May 4-5.
- Atchison, C. L. (2011). *Addressing the needs of students with mobility impairments in geoscience field-based learning environments*. Paper presentation at the 2011 Association for Science Teacher Education International Conference, Minneapolis, MN, January 19-22. Available online at:  
<http://theaste.org/meetings/2011conference/ASTE%202011%20Completed%20Program.pdf>

### **External Grant Awards and Submissions**

- Bear, T., Atchison, C.L., Boss, S, Bueno Watts, N., Morris, A., & (in review). *INCLUDES DDLP: Re-envisioning Science for an Inclusive Society Today*. NSF INCLUDES (17-522) #7783841, INCLUDES Design and Development Launch Pilots (DDLDP), National Science Foundation. (\$299,961; \$64,968 to UC). Pending. (Atchison, Co-PI).
- Sinha, P., Dey, A.K., Ertin, E., Kitani, K., & Wild, T.A. (in review). *SCC-IRG Track 1: Towards Inclusive Smart Communities for Individuals with Visual Disabilities*. NSF CNS (S&CC 16-610) # 1737476, Smart & Connected Communities (S&CC), National Science Foundation. (\$5,000,000; \$187,431 to UC). Pending. (Atchison, Sr. Personnel).
- Libarkin, J.C., Atchison, C.L., Callahan, C. & McCallum, C. (2015-2018). *The Impact of Social Capital and Mentoring in Earth System Science Workforce Development*. NSF EHR (DGE 15-509) #1535011, Core Research (ECR), National Science Foundation. (\$481,795.00; \$145,814 to Atchison). Funded. (Atchison, Co-PI).

Whitmeyer, S.J., Atchison, C.L., DePaor, D.G. & Piatek, J.L. (2015-2017). *GP-EXTRA: Engaging Students in Inclusive Geoscience Field Experiences via Onsite-Remote Partnerships*. NSF GEO (ICER 15-526) #1540652, Improving Undergraduate STEM Education: Pathways into Geoscience (IUSE: GEOPATHS), National Science Foundation. (\$353,742.00; \$167,566 to Atchison). Funded. (Atchison, Co-PI).

Atchison, C.L. & Feig, A.D. (2014-2015). *Enhancing Accessibility in the Geoscience: A Field-Based Workshop for Accommodating Students with Disabilities*. NSF GEO (ICER) #1441185, Integrative & Collaborative Education & Research (ICER), National Science Foundation. (\$74,998.00). Funded. (Atchison, PI).

Atchison, C.L. & Gilley, B.H. (2014). *SEG Field Course Proposal: Full Access to the Geology of Vancouver*. Society for Exploration Geophysicists. (\$6,000.00). Funded. (Atchison, PI).

Atchison, C.L. (2013). *IAGD-IUGS/COGE Collaborative*. International Union of Geological Sciences (IUGS), Commission on Geoscience Education, Training and Technology Transfer (COGE). (\$1,500.00). Funded. (Atchison, PI).

Atchison, C.L. (2012-2013). *Instructional Approaches to Access, Accommodation, and Inclusion in the Geosciences: An International Workshop*. NSF GEO #1240234, Opportunities for Enhancing the Diversity in the Geosciences (OEDG), National Science Foundation. (\$10,000.00). Funded. (Atchison, PI).

Atchison, C.L. (2012). *IAGD-IUGS/COGE Collaborative*. International Union of Geological Sciences (IUGS), Commission on Geoscience Education, Training and Technology Transfer (COGE). (\$1,200.00). Funded. (Atchison, PI).

Stredney, D., Atchison, C. L., Price, A. & Irving, K. E. (2010-2014). *OEDG Track 1: Expanding Geoscience Diversity through Simulated Field Environments for Students with Physical Disabilities*. NSF GEO #1108127, Opportunities for Enhancing the Diversity in the Geosciences (OEDG), National Science Foundation. (\$238,874.00). Funded. (Atchison, Co-PI).

Atchison, C. L. (2010). In-kind funding in support of the *Alternative Field Environments for Non-Traditional Students* project. Ohio STEM Ability Alliance (OSAA), Wright State University. (\$10,480.00). Funded. (Atchison, PI).

Atchison, C. L., & Stredney, D. & Price, A. (2009-2010). *OEDG Planning Grant: Expanding Geoscience Diversity: Alternative Field Environments for Non-Traditional Students*. NSF GEO #0939645, Opportunities for Enhancing the Diversity in the Geosciences (OEDG), National Science Foundation. (\$39,980.00). Funded. (Atchison, Co-PI).

### **University Internal Grant Awards and Submissions**

Atchison, C.L. (2017). CECH Faculty Development Grant. (\$1,000.00). Funded.

Atchison, C.L. & Hendricks, J. (2015). *A Study of Students with Sensory Disabilities on a Geology Field Trip*. CECH Undergraduate Mentoring Grant. (\$1,000.00). Funded.

Atchison, C.L. (2014-2015). CECH Faculty Development Grant. (\$1,564.00). Funded.

Atchison, C.L. (2013-2014). *Integrating Student-Centered Approaches in Introductory Geoscience Lab*. STEM II Funding University System of Georgia. (\$23,000.00). Funded.

Atchison, C.L. (2013). *NSF CAREER: An Inclusive Geoscience Program Model for Students with Physical Disabilities*. GSU Special Internal Grant Initiative. (\$5,000.00). Funded.

Atchison, C.L. (2012). *Course materials and resources: ISCI/NSCI*. STEM II Funding University System of Georgia. (\$4,604.11). Funded.

Reeves, M.M. & Atchison, C.L. (2011-2012). *Revising ISCI 2001 to Better Support Future Elementary Teacher Science Understanding*. STEM II Funding University System of Georgia. (\$4,650.00). Funded. (Atchison, Co-PI).

Martin-Hansen, L.M & Atchison, C.L. (2011-2012). *Refining and Examining a Collaboratively Taught Earth Science Course for Future Middle School Teachers*. STEM II Funding University System of Georgia. (\$8,080.00). Funded. (Atchison, Co-PI).

### **Unfunded External Grant Applications**

McConnell, D. & Libarkin, J.C. (2016-2021). *Building Better Geoscience Instructors: Using a Geoscience Education Course for Future Faculty as a Mechanism for Sustained Professional Development in Undergraduate Teaching*. NSF DUE, 14-588 #1525248, Institutional & Community Transformation, D&D (IUSE), National Science Foundation. (\$2,097,278.00). Unfunded. (Atchison, Sr. Personnel).

Libarkin, J.C., Callahan, C., Atchison, C.L. & McCallum, C. (2014-2017). *Collaborative Research: The Role of Social Capital in the Career Development of Earth Systems Scientists with Diverse Abilities*. NSF DRL, 13-555 #1432055, Core Research (CORE), National Science Foundation. (\$296,115.00). Unfunded. (Atchison, Co-PI).

Atchison, C.L., LaDue, N. & Uttal, D.H. (2014-2017). *Collaborative Research: Assessing STEM and Spatial Skills in Students with Diverse Physical Abilities*. NSF DRL, 13-604 #1420601, Research on Education and Learning (REAL), National Science Foundation. (\$499,573.00). Unfunded. (Atchison, Co-PI).

Atchison, C.L., Locke, S.M., & Gilley, B.H. (2014). *A Top-Down Model for Broadening Participation in the Geosciences*. NSF DRL, 13-604 #1420615, Research on Education and Learning (REAL), National Science Foundation. (\$499,938.00). Unfunded. (Atchison, PI).

Atchison, C.L. Locke, S.M., & Gilley, B.H. (2013). *Building Capacity through Geoscience Communities of Access*. NSF HRD 13-555 #1348739, Core Research (ECR), National Science Foundation. (\$299,970.00). Unfunded. (Atchison, PI).

Hawthorne, T.L., Atchison, C.L., Diem, J., & Visaggi, C. (2012). *International Research Experiences for Students in Community Geography and Geographic Information Systems in Belize*. NSF IIA 12-551 #1261112, International Research Experiences for Students (IRES), National Science Foundation. (\$249, 999.00). Unfunded. (Atchison, Co-PI).

Atchison, C.L. & Hawthorne, T.L. (2012). *RDE MB 1: GeoACCESS: An Inclusive Graduate Geoscience Program Model for Students with Physical Disabilities*. NSF HRD 12-542 #1246599, Research in Disabilities Education (RDE), National Science Foundation. (\$772,295.00). Unfunded. (Atchison, PI).

Atchison, C.L. & Babaie, H. (2012). *MRI: Development of an Openly Shared Cyberinfrastructure for Digital Geologic Field Mapping, While Enhancing Access for Students with Mobility Impairments*.

NSF EAR 11-503 #1229515, Major Research Instrumentation (MRI), National Science Foundation. (\$2,875, 285.00). Unfunded. (Atchison, PI).

Hawthorne, T. & Atchison, C.L. (2011). *Utilizing International Fieldwork Data to Introduce Geospatial Technologies to Atlanta High School Students*. Google Roots in Science and Engineering (RISE). (\$24,996). Unfunded. (Atchison, Co-PI).

### Unfunded University Internal Grant Applications

Dietsch, C., Atchison, C.L., & Carnahan, C.R. (2016). *International Communities of Inclusive Learning in the Geosciences*. University of Cincinnati Diversity and Inclusion Incentive Grant. (\$9,260.00). Unfunded. (Atchison, Co-PI).

Dunning, K. & Atchison, C.L. (2016). *Enhancing Stroke Recovery through Inclusive Outdoor Engagement*. Strategic Collaborative Grant Program. University of Cincinnati Office of Research. (\$120,000.00). Withdrew. (Atchison, Co-PI).

Atchison, C.L. & Judy, K.A. (2014). *Creating a Model for Accessible Geoscience Field Courses*. C.C. Arrington Research Initiation Grant Program. Georgia State University. (\$20,958.00). Unfunded. (Atchison, PI).

Atchison, C.L. (2012). *Assessing Geoscience Faculty Perceptions of Access and Inclusion for Students with Disabilities*. C.C. Arrington Research Initiation Grant Program. Georgia State University. (\$9,747.00). Unfunded. (Atchison, PI).

## INSTRUCTION

### Student Advisement

<i>Student</i>		<i>Level, program</i>	<i>Role</i>	<i>Institution</i>	<i>Status</i>
• Corbin Smith	2016-	Masters Student, C&I STEM	Advisor	UC	in progress
• Anita Marshall	2015-	Doctoral, Geology/Education	Committee	USF	in progress
• Ivan Carabajal	2015-	Masters Student, Geology	Chair	UC	in progress
• Ashley Vaughn	2014-	Doctoral, Science Education	Committee	UC	in progress
• Julie Hendricks	2014-15	Undergraduate, Special Ed.	COF*	UC	completed
• Michael Esch	2014-15	Undergraduate, Secondary Ed.	COF*	UC	completed
• Roger Anderson	2014-15	Undergraduate, MDL Science	COF*	UC	completed
• Nicole Perkins	2014-15	Undergraduate, Special Ed.	COF*	UC	completed
• Kera Judy	2013-14	Doctoral, Geology	Chair	GSU	withdrew
• James Dennis	2012-14	Doctoral, Science Education	Committee	GSU	resigned

\*Choose Ohio First Scholar

### Courses Taught

• MDL 4008/7008	Middle Grades Natural Science Methods II	(FA 2017)
• EDST 9001	Professional Seminar in Educational Studies	(FA 2017)
• MDL 4001/7001	Middle Grades Natural Science Methods I	(SP 2017)
• CI 7090	Graduate Capstone in Curriculum & Instruction	(SP 2017)
• GEOL 4050/6050	Teaching Geoscience (Cross-listed CI 4050/6050)	(FA 2016)
• CI 7090	Graduate Capstone in Curriculum & Instruction	(FA 2016)
• MDL 4008/7008	Middle Grades Natural Science Methods II	(SP 2016)

- CI 7090 Graduate Capstone in Curriculum & Instruction (SP 2016)
- CI 2009c/7009c The Nature of Scientific Exploration and Instruction (FA 2015)
- CI 7001 Master's Research Seminar: C&I (FA 2015)
- CI 7090 Graduate Capstone in Curriculum & Instruction (SU 2015)
- MDL 4008/7008 Middle Grades Natural Science Methods II (SP 2015)
- CI 7090 Graduate Capstone in Curriculum & Instruction (SP 2015)
- MDL 4001/7001 Middle Grades Natural Science Methods I (FA 2014)
- GEOG/GEOS 4515/6515 Qualitative Methods (SP 2014)
- GEOS 8061 Instructional Theory in Geoscience Education (FA 2013)
- GEOG 4532/6532 Geographic Information Systems of Belize (SU 2013)
- GEOG/GEOL 4830 Senior Seminar (SP 2013)
- NSCI 3002/7002 Integrated Sciences II: Earth Sciences (SP 2013)
- GEOL 7022 General Geology for Teachers II (FA 2012)
- GEOL 1122 Introductory Geosciences II (FA 2012)
- GEOS 8060 Geosciences Teaching Practicum (FA 2012)
- GEOG 4532/6532 Geographic Information Systems of Belize (SU 2012)
- NSCI 3002/7002 Integrated Sciences II: Earth Sciences (SP 2012)
- GEOL 1121K Introductory Geosciences I (FA 2011)
- ISCI 2001 Integrated Sciences I: Life/Earth (FA 2011)

#### **Directed Readings/ Independent Studies**

- GEOG 4832/GEOS 6832 Atlanta Science Festival Internship Course (SP 2014)
- GEOS 8060 Geosciences Teaching Practicum (FA 2012)

#### **Courses Created**

- GEO & CI 4050/6050 Teaching Geoscience (Cross-listed) (UC)
- CI 2009c/7009c The Nature of Scientific Exploration and Instruction (UC)
- GEOS 8061 Instructional Theory in Geoscience Education (GSU)

#### **Guest Lectures**

2017 *Inclusive Earth Science Experiences.* Collaboration for Employment and Education Synergy (CEES) Program, University of Cincinnati, July 12.

2016 *Update of UC's diversity, equity, and inclusion efforts.* CECH Diversity & Inclusion Board meeting, School of Education, College of Education, Criminal Justice and Human Services, University of Cincinnati, December 12.

*Designing discipline-based education research experiences for individuals with disabilities.* Power Friday. School of Education, College of Education, Criminal Justice and Human Services, University of Cincinnati, November 18.

*Overcoming implicit bias and stereotype to truly understand ability.* BA 3080: Business Professionalism and Character. Dr. Jonathan Miles, Carl H. Linder College of Business, University of Cincinnati, November 10.

2015 *Institutional accessibility requires a cultural shift of perspective!* Webinar to the staff of the Geological Society of America on implementing accessible opportunities across the society's initiatives, Boulder, CO (remotely), September 17.

*How we understand the Earth through rocks and fossils.* Helke Elementary 3<sup>rd</sup> Grade. Mrs. Alison Deisher, Vandalia Butler Schools, Vandalia, OH, May 14.

2014 *How we understand the Earth through rocks and fossils.* Helke Elementary 3<sup>rd</sup> Grade. Mrs. Alison Deisher, Vandalia Butler Schools, Vandalia, OH, March 3.

*Understanding (the evolution of) life through the geologic record.* GSU Teacher Quality Grant: Our Changing World Exploring Cross-Cutting Regarding Earth and Life through Time. Donna Barrett and Lisa Martin-Hansen, Department of Middle and Secondary Education, Georgia State University, February 1.

2013 *Selecting appropriate data collection methodologies.* GEOG 8001: Research Methods. Dr. Larry Kiage, Department of Geosciences, Georgia State University, October 3.

*Understanding Belize: People and places from yesterday and today.* Morton Middle School 5<sup>th</sup> Grade Assembly. Mr. John Schmidt, Vandalia Butler Schools, Vandalia, OH, June 3.

*Differentiating instruction: Universal and inclusive design for learning.* ECE 4661 & 4662: Early Childhood Education Student Teaching with ESOL and Special Education. Dr. Carla Tanguay, College of Education, Georgia State University, March 8.

2012 *Addressing the needs of students with mobility impairments in geoscience field-based learning environments.* ESC 400: Earth Science Education. Dr. Anthony Feig, Department of Geography, Central Michigan University (remotely), January 24.

*Methods: Qualitative approaches.* GEOG 8001: Research Methods. Dr. Katherine Hankins, Department of Geosciences, Georgia State University, October 24.

2011 *Qualitative methods.* GEOG 8001: Research Methods. Dr. Katherine Hankins, Department of Geosciences, Georgia State University, October 25.

*The significance of access: Students with mobility impairments constructing Geoscience knowledge through field-based learning experiences.* Science Education Doctoral Colloquium. Dr. Kadir Demir, College of Education, Georgia State University, October 17.

*Expanding geoscience diversity through simulated field environments for students with physical disabilities.* GSU Geoscience Club. Department of Geosciences, Georgia State University, September 28.

### **Conference Workshops and Short Courses Taught**

Atchison, C.L. & Whitmeyer, S.J. (2017). Field Trip #414: *Accessible Field Geology of Western Washington.* Geological Society of America Annual Meeting, Seattle, WA, October 21.

Atchison, C.L., Marshall, A.M., Whitmeyer, S.J., Piatek, J.L., Carbajal, I.G., & Eriksson, S.C. (2017). *Designing Accessible Field-Based Learning in the Geosciences.* Online video presentation at the 2017 National Science Foundation STEM for All Video Showcase: Research & Design for Impact. May 15-22. <http://videohall.com/p/920>

Atchison, C.L., Carnahan, C. R., Shume, T., DeSutter, K., Porter, J., & Gee, K. (2017). *Models of Collaboration in Support of Inclusive Science Teacher Education.* Inclusive Science Education Forum and the Equity Committee Workshop at the 2017 Association for Science Teacher Education (ASTE) International Meeting. Des Moines, IA, January 12-14.

Atchison, C.L. & Gilley, B.H. (2016). Field Trip #417: *An Accessible Journey through Geologic Time in Central Colorado.* Geological Society of America Annual Meeting, Denver, CO, September 24.

Atchison, C.L. (2016). Designing an accessible REU that supports the abilities of all students. Working Group Breakout Session at the GEO REU Workshop, Boulder, CO, September 22.

Atchison, C.L. & LaDue, D. (2016). *Key Elements of Running an REU, Part 1*. Key Elements Session at the GEO REU Workshop, Boulder, CO, September 22.

Kooman, M., Dotger, S. & Atchison, C.L. (2015). *Science Education for All: Using video, Disciplinary Literacy and Other Research Base Strategies to Support Learning for all Students*. Workshop at the 2015 Association for Science Teacher Education (ASTE) International Meeting. Portland, OR, January 9.

Atchison, C.L. & Gilley, B.H. (2014). Field Trip #416: *Full Access to the Geology of the Sea-to-Sky Highway*. Geological Society of America Annual Meeting, Vancouver, BC, October 18.

Atchison, C.L. & Houlton, H. (2014). *Accommodating Geoscience Workforce Diversity: Including the Talents of All Geoscientists*. 2014 American Geosciences Institute (AGI) Geosciences Leadership Forum. Arlington, VA, September 15.

Atchison, C.L., Smetana, L. & Koomen, M. (2014). *Instructional Approaches to Access, Accommodation, and Inclusion for Students with Disabilities in Science Education*. Workshop at the 2014 Association for Science Teacher Education (ASTE) International Meeting. San Antonio, TX, January 17.

Atchison, C.L. & Ceylan, G. (2013). *Instructional Approaches to Access, Accommodation, and Inclusion for Students with Disabilities in the Geosciences*. Workshop at the American Geophysical Union (AGU) Fall Meeting. San Francisco, CA, December 10. Online at: <https://fallmeeting.agu.org/2013/events/instructional-approaches-to-access-accommodation-and-inclusion-for-students-with-disabilities-in-the-geosciences/>

Manduca, C., Atchison, C.L., Chitewere, T. & Schneiderman, J. (2013). *Teaching Environmental Justice: Interdisciplinary Approaches*. InTeGrate workshop at the Science Education Resource Center (SERC), Northfield, MN, April 14-16.

Atchison, C.L., Gilley, B. & Ceylan, G. (2012). *Instructional Approaches to Access, Accommodation, and Inclusion for Students with Disabilities in the Geosciences*. Workshop at the Geological Society of America (GSA) Annual Meeting. Charlotte, NC, November 3.

Atchison, C.L., Gilley, B. & Ceylan, G. (2012). *Instructional Approaches to Access, Accommodation, and Inclusion for Students with Disabilities in the Geosciences*. Workshop at the 34th International Geological Congress. Brisbane, Australia, August 5.

### **Professional Development Attended**

April 29-May 7, 2017 Tectonic and Landscape Evolution of the Southern San Andreas Transform Plate Margin (GEOL 5001/8001- UC Geology department field course).

March 2-4, 2017 Next Lives Here, Social Change Innovation Summit, Kingsgate Inn and Conference Center, Cincinnati, OH. Online at: <http://cech.uc.edu/NLH.html>

January 10-11, 2017 Unity of Purpose for Equitable Representation in Geosciences, National Science Foundation (NSF), Arlington, VA (invited).

October 13, 2016 Learning & Teaching at UC Conference, Cincinnati, OH. Online at: <https://aksh.at/lt-at-uc/>



- September 16, 2016 Models of Teaching Excellence (MOTE) with the Academy of Fellows for Teaching & Learning (AFTL), Cincinnati, OH.
- April 29-May 1, 2015 Summit on the Implementation of the NGSS at the State Level, National Oceanic and Atmospheric Administration (NOAA), Silver Spring, MD. Online at: [http://nagt.org/nagt/profdev/workshops/ngss\\_summit/2015/program.html](http://nagt.org/nagt/profdev/workshops/ngss_summit/2015/program.html)
- April 8-10, 2015 AccessEngineering Capacity Building Institute, University of Washington, Seattle, WA. Online at: <http://www.washington.edu/doi/building-capacity-increase-participation-people-disabilities-engineering>
- February 23-25, 2014 Broadening Access to the Earth and Environmental Sciences: Increasing the Diversity of Undergraduate Students Learning About the Earth. Arizona State University, Tempe, AZ. Online at: [http://serc.carleton.edu/integrate/workshops/broaden\\_access/index.html](http://serc.carleton.edu/integrate/workshops/broaden_access/index.html)
- March 3-6, 2013 EarthCube Education End Users Workshop, Scripps Institution of Oceanography, La Jolla, CA. Online at: <http://nagt.org/nagt/programs/earthcube/index.html>
- October 15-17, 2012 EarthCube Early Career Strategic Visioning Workshop, Carnegie Institution, Washington, DC. Outcomes online at: <http://earthcube.org/sites/default/files/doc-repository/EarlyCareerStrategicVisioningEndUserWorkshop.pdf>
- April 4-6, 2012 Developing a Diverse Professoriate Workshop, American Geosciences Institute, Arlington, VA. Online at: <http://www.americangeosciences.org/workforce/developing-diverse-professoriate>
- February 9-10 2YC and Diversity Planning Meeting, University of Texas, El Paso, TX.
- October 8, 2011 Virtual Experiences in Geoscience Education Short Course, Geological Society of America Annual Meeting, Minneapolis, MN. Online at: [http://virtualfieldwork.org/GSA\\_Short\\_Course\\_2011.html](http://virtualfieldwork.org/GSA_Short_Course_2011.html)

## PROFESSIONAL SERVICE

### Service to the Profession

- 2017 - 2019 Steering Committee, Embedding and Sustaining Inclusive STEM Practices. Higher Education Funding Council for England (HEFCE) -funded research (£912,749) led by T. Collins, J. Houghton, & A. Stokes (invited)
- 2017 - current Diversity & Inclusion External Advisory Committee, University Corporation and National Center for Atmospheric Research (UCAR/NCAR)
- 2017 Panelist, National Science Foundation INCLUDES Proposal Review, Arlington, VA (invited)
- 2014 - 2017 Faculty Leadership Team, *AccessEngineering*. NSF-funded research (\$836,000) led by S. Burgstahler, M. Cakmak, & K. Steele (invited)
- 2013 - 2015 Manuscript Reviewer, Journal of Women and Minorities in Science & Engineering (invited)
- 2013 Panelist, National Science Foundation WIDER Proposal Review, Arlington, VA (invited)
- 2011 - 2017 Manuscript Reviewer, Journal of Geoscience Education (invited)
- 2010 - 2013 Conference Proposal Reviewer, Society for Information Technology & Teacher Education (SITE) International Conference

### Service to the National and International Community

- 2017 Field Trip Co-Chair, Geological Society of America Annual Meeting, Seattle, WA
- 2016 - 2017 *Past-Chair*, Geological Society of America (GSA) Geoscience Education Division
- 2016 Field Trip Co-Chair, Geological Society of America Annual Meeting, Denver, CO
- 2016 *On to the Future* Program Mentor, Geological Society of America (GSA), Denver, CO
- 2016 Co-Author, Association for Science Teacher Education (ASTE) *Position Statement on*

*Equity and Inclusion in Science Education:* <https://theaste.org/about/aste-position-statement-on-the-inclusion-of-underserved-populations-in-science-education/>

- 2015 *On to the Future* Program Mentor, Geological Society of America (GSA), Baltimore, MD  
2015 - 2016 Chairman, Geoscience Education Division (GED), Geological Society of America (GSA)  
2015 Program Chair, Mid-Atlantic Association for Science Teacher Education (ASTE):  
<http://ma.theaste.org/meetings/2015-mid-atlantic-aste-regional-conference/>  
2014 - 2015 Co-Author, American Geosciences Institute (AGI) *Consensus Statement Regarding Access and Inclusion of Individuals Living with Disabilities in the Geosciences:*  
<http://www.americangeosciences.org/community/disability-consensus-statement>  
2014 - 2015 Vice-Chair, Geoscience Education Division (GED), Geological Society of America (GSA)  
2014 - 2015 Joint Technical Program Committee, Geological Society of America (GSA), Geoscience Education Division (GED)  
2014 Field Trip Co-Chair, Geological Society of America Annual Meeting, Vancouver, BC, Canada  
2013 - 2014 Second Vice-Chair, Geoscience Education Division (GED), Geological Society of America (GSA)  
2013 Technical Session Co-Chair, Geological Society of America Annual Meeting, Denver, CO  
2012 Technical Session Co-Chair, Geological Society of America Annual Meeting, Charlotte, NC  
2011 Technical Session Co-Chair, Geological Society of America Annual Meeting, Minneapolis, MN  
2009 - 2013 Secretary/Treasurer, Geological Society of America (GSA), Geoscience Education Division (GED)  
2008 - current Founder, Executive Director, International Association for Geoscience Diversity (IAGD)

#### **Service to the University**

- 2016 - current Co-Chair, Creation of Courses and Modules Working Group, UC Diversity and Inclusion Curriculum Development Steering Committee  
2016 General Education Revision Sub-Committee, UC Diversity and Inclusion Steering Committee  
2014 - 2020 Graduate Faculty Appointment, University of Cincinnati  
2014 Guest Facilitator, #UCWheels Program, University of Cincinnati Diversity Office  
2012 - 2014 Georgia State University Disabilities Initiatives Committee (GSU)  
2012 - 2014 Atlanta Science Festival Planning Committee (GSU)

#### **Service to the College**

- 2015 Engineering Design Co-instructor - TAP Program College Success Camp (July 27-31)  
2013 - 2014 Faculty Search Committee, A&S - Geosciences, Hydrology (GSU)  
2013 - 2014 Faculty Search Committee, COE - Middle Childhood Education (GSU)  
2012 - 2013 Faculty Search Committee, COE - Early Childhood Education (GSU)  
2011 - 2014 Professional Education Council (GSU)  
2011 - 2014 Professional Education Faculty/ College of Education Diversity Committee (GSU)

#### **Service to the School/Department**

- 2015 - current CECH Grievance/Appeals Committee (elected from School of Education faculty)  
2014 - 2016 Dean's Compact Initiative  
2014 - 2016 School of Education Restructuring Steering Committee  
2011 - 2013 Co-Chair, Department of Geosciences Student Recruitment Committee (GSU)  
2011 - 2013 Chair, Geoscience Core Curriculum Evaluation Committee (GSU)

#### **Service to the Local Community**

- 2017 Science Fair Judge, Southwest Ohio Science & Engineering Expo (March 11)  
2015 Science Fair Judge, Corryville Catholic Middle School, Cincinnati, OH

2009 - 2016 Board of Governors, Children's Dyslexia Center, Dayton, OH

### Professional Memberships

- American Association for the Advancement of Science (AAAS), Member since 2013
- American Geophysical Union (AGU), Member since 2008
- Association for Science Teacher Education (ASTE), Member since 2009
- Geological Society of America (GSA), Member since 2004
- Institute for Accessible Science (IAS), Member since 2010
- International Association for Geoscience Diversity (IAGD), Member since 2008
- National Association of Geoscience Teachers (NAGT), Member since 2007
- National Association for Research in Science Teaching (NARST), Member since 2008
- National Science Teacher Association (NSTA), Member since 2014
- Ohio Academy of Science (OAS), Member since 2016
- Spatial Network of the Spatial Intelligence and Learning Center (SILC), Member since 2013

### In the News

#### 2017

- Quan, G. & Dounas-Frazer, D. (2017). A Reflection on the Creating Inclusive Environments at Conferences Panel, *PERCoGS Newsletter*, 9(4). <http://bit.ly/2nDtS8m>
- School of Education Professor to Serve on National Diversity Board: <http://cech.uc.edu/headlines/2016/atchison-diversity.html>

#### 2016

- UC Currents, December 5: Teaching for Equity & Inclusion Workshop Set for December 8. <http://www.uc.edu/content/dam/uc/diversity/docs/Teaching-for-equity-inclusion.pdf>
- *The Bridge*, American Geophysical Union (AGU) Blogosphere, Bridging the gap: Creating an inclusive world of geoscience learning. Published on 13 October 2016: <http://thebridge.agu.org/2016/10/13/q-dr-christopher-atchison-geoscience-diversity/>
- *The Upper Crust*, Department of Geology, University of Cincinnati, Alumni Newsletter. Published summer 2016: [https://issuu.com/huffwd/docs/uppercrust\\_2016](https://issuu.com/huffwd/docs/uppercrust_2016)
- Brown, E. (2016), Disability awareness: The fight for accessibility, *Nature*, 532, 137-139. doi:10.1038/nj7597-137a. Published on 06 April 2016: <http://www.nature.com/nature/journal/v532/n7597/full/nj7597-137a.html>
- TAP Science Course Focuses on the Collaboration between Students with Disabilities and Traditional Students: [http://cech.uc.edu/headlines/2016/TAP\\_Class.html](http://cech.uc.edu/headlines/2016/TAP_Class.html)

#### 2015

- Kelleher, S. (2015), Students with disabilities not just welcome but expected, *Eos*, 96, doi:10.1029/2015EO038203. Published on 27 October 2015. <https://eos.org/articles/students-with-disabilities-not-just-welcome-but-expected>
- University of Arizona Press Release, October 16: UA Creates Accessible, Study-Abroad Geosciences Course. <http://uanews.org/story/ua-creates-accessible-study-abroad-geosciences-course>
- UC Currents, June 23: UC Researcher to Serve as Keynote at Geological Society of London Conference: <http://www.geolsoc.org.uk/Events/Past-Meeting-Resources/Confronting-Barriers-to-inclusion-opening-the-gate-to-accessible-fieldwork>

#### 2014

- UC Currents, October 14: Course Opens International Field Research to College Students with Disabilities; A UC researcher leads the trip that ends with participation in the Geological Society of America's Annual Meeting. <http://www.uc.edu/News/NR.aspx?id=20603>

- UC Currents, October 15: UC Geologists Dig Into Science around the Globe, on Land and at Sea; UC research and discoveries will be highlighted at The Geological Society of America's Annual Meeting and Exposition in Vancouver, Canada. <http://www.uc.edu/News/NR.aspx?id=20621>
- UC Currents, October 28: WATCH: Accessible Geology Field Trip Captured on Camera; A UC researcher led the trip that served student researchers with disabilities. <http://www.uc.edu/News/NR.aspx?id=20709>

## 2011

- Hi Velocity Article, September 22: Visualizations Could Give Wheelchair Bound Students Ability to Explore Caves. [http://www.hivelocitymedia.com/innovationnews/Bluemile9\\_22\\_11.aspx?utm\\_source=VerticalResponse&utm\\_medium=Email&utm\\_term=Visualizations+could+give+wheelchair+bound+students+ability+to+explore+caves&utm\\_content={Email Address}&utm\\_campaign=Accelerating+the+startup+universe](http://www.hivelocitymedia.com/innovationnews/Bluemile9_22_11.aspx?utm_source=VerticalResponse&utm_medium=Email&utm_term=Visualizations+could+give+wheelchair+bound+students+ability+to+explore+caves&utm_content={Email Address}&utm_campaign=Accelerating+the+startup+universe)
- Ohio Supercomputer Center Press Release, August 17: NSF Funds Research to Simulate Geoscience Field Trips. [https://www.osc.edu/press/nsf\\_funds\\_research\\_to\\_simulate\\_geoscience\\_field\\_trips](https://www.osc.edu/press/nsf_funds_research_to_simulate_geoscience_field_trips)