

David McConnell Curriculum Vitae Summary

Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University PhD 1987, Texas A&M University, College Station, TX

Publications

- >60 peer-reviewed articles, books
- 16 papers (since 2014) published with NCSU graduate student/postdoc coauthors

Professional Presentations

- >180 posters or talks at professional meetings
- >30 presentations since 2014 involved NCSU graduate student/postdoc coauthors

Grants

- More than \$3 million in 18 external grants (11 from NSF, 8 as PI, 3 as Co-PI)
- More than \$2.3 million in external funding while at NCSU

Teaching

- 12 different courses taught; most recently, Physical Geology (MEA 101), DBER in the Geosciences (MEA 507) at NC State
- Teaching related awards
 - o NC State Alumni Association Distinguished Undergraduate Professor, 2020
 - o College of Physical and Mathematical Sciences Outstanding Teacher Award, 2012
 - o National Association of Geoscience Teachers Neil Miner Award, 2010
 - University of Akron's Outstanding Teacher-Scholar, 2002

Awards, Recognition

- Journal of Geoscience Education Outstanding Paper Award, 2018
- President, National Association of Geoscience Teachers, 2018-2019
- Geological Society of America Fellow, awarded 2016
- >70 invited presentations on teaching and learning

Co-Creator

- GeoScience Videos YouTube Channel (<u>www.youtube.com/c/GeoScienceVideos</u>)
 - Launched October, 2014
 - >19,000 subscribers, >3.5 million views

CURRICULUM VITAE

DAVID A. McCONNELL

Department of Marine, Earth and Atmospheric Sciences North Carolina State University, Campus Box 8208, Raleigh, NC 27695-8208 Phone: 919-515-0381 Email: <u>damcconn@ncsu.edu</u> YouTube Channel: <u>http://www.youtube.com/c/GeoScienceVideos</u> CLASS: <u>https://www.classforlearning.com/</u>

EDUCATION

- **Ph.D.**, 1987, Texas A&M University, College Station, Texas. Dissertation: *Paleozoic Structural Evolution of the Wichita Uplift, southwestern Oklahoma*. Advisors: Dr. John H. Spang & Dr. M. Charles Gilbert
- M.S., 1983, Oklahoma State University, Stillwater, Oklahoma
- B.Sc.(Hons), 1981, The Queen's University, Belfast, N. Ireland

EMPLOYMENT

- Professor, August 2008-present, Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University
- Faculty Scholar/Director, Office of Faculty Development, North Carolina State University, 2009-2012
- Professor, August 2001-2008, Department of Geology and Environmental Science, University of Akron
- Interim Co-Director, Institute for Teaching and Learning, August 2004-June 2005, University of Akron
- Director, Center for Collaboration & Inquiry, August 2002-July 2005, University of Akron
- Associate Professor, August 1995 August 2001, University of Akron
- Assistant Professor, August, 1991 July, 1995, University of Akron
- Visiting Assistant Professor, August, 1989 July, 1991, University of Akron
- Visiting Assistant Professor, August 1987 August 1989, Kansas State University

PUBLICATIONS

Reviewed Articles, Books

 Jones, J. P. & McConnell, D. A., 2022, Investigating best practices in utilizing a web-based assessment tool in an introductory geology course: "CLASS", course setting and course structure. Journal of Geoscience Education. <u>https://doi.org/10.1080/10899995.2022.2028519</u>

- 2. Chapman, L.Y., and McConnell, D.A., 2021, A longitudinal case study assessing experiences contributing to interest in teaching and teaching beliefs of future geoscience faculty. Journal of Geoscience Education. https://doi.org/10.1080/10899995.2021.1940467
- Mosher, S., Harrison, W., Huntoon, J., Keane, C., McConnell, D., Miller, K., Ryan, J., Summa, L., Villalobos, J., White, L., 2021, Vision and Change in the Geosciences: The Future of Undergraduate Geoscience Education: American Geosciences Institute, 176 p.
- Lukes, L., Jones, J.P., and McConnell, D.A., 2020, Self-regulated learning: Overview and future directions in geoscience. Journal of Geoscience Education, <u>https://doi.org/10.1080/10899995.2020.1820828</u>
- 5. McConnell, D.A., and Steer, D.N., 2020, The Good Earth: An Introduction to Earth Science: 5th edition, McGraw-Hill, 538 p.
- 6. McConnell, D.A., 2019, Research-based instructional reform in the geosciences: Building a community of practice, p.81-99, in *Levers for change: An assessment of progress on changing STEM instruction*. Washington, DC: American Association for the Advancement of Science, 200 p.
- Jones, J.P., McConnell, D.A., Wiggen, J.L., and Bedward, J., 2019, Effects of classroom "flipping" on content mastery and student confidence. Journal of Geoscience Education. V.67, #3, p.195-210 <u>https://doi.org/10.1080/10899995.2019.1568854</u>
- Czajka, C.D. and McConnell, D.A., 2019, The adoption of student-centered teaching materials as a professional development experience for college geoscience faculty. International Journal of Geoscience Education. V.41, #5, p.693-711. <u>https://doi.org/10.1080/09500693.2019.1578908</u>
- Steer, D., Iverson, E., Egger, A., Kastens, K., Manduca, C.A., and McConnell, D. 2019, InTeGrate materials development: A framework and process for developing curricular materials that address grand challenges facing society. P.25-44; in Gosselin, D.C., Egger, A.E., Taber, J.J., editors, Interdisciplinary Teaching about Earth and the Environment for a Sustainable Future: Springer, 405p.
- Czajka, C.D. and McConnell, D.A., 2018, An exploratory study examining geology students' conceptions related to geologic time and rates. Journal of Geoscience Education. V.66, #5, p.231-245. <u>https://doi.org/10.1080/10899995.2018.1480826</u>
- 11. Chapman, L., and McConnell, D.A., 2018, Characterizing the teaching beliefs of future geoscience professors. Innovative Higher Education, v.43, #3, p. 185-200. <u>https://doi.org/10.1007/s10755-017-9416-9</u>.
- McConnell, D.A., Chapman, L., Czajka, C.D., Jones, J., Ryker, K.D., and Wiggen, J., 2017, Instructional utility and learning efficacy of common active learning strategies. Journal of Geoscience Education, v.65, #4, p.604-625, <u>https://doi.org/10.5408/17-249.1¹</u>.
- McConnell, D.A., and Steer, D.N., 2017, The Good Earth: An Introduction to Earth Science: 4th edition, McGraw-Hill, 535 p.

¹ Journal of Geoscience Education Best Paper Award, 2018

- 14. Wiggen, J., and McConnell, D.A., 2017, Geoscience videos and their role in supporting student learning. Journal of College Science Teaching, v.46, #6, p.44-49.
- Pelch, M.A., and McConnell, D.A., 2017, How does adding an emphasis on socioscientific issues influence student attitudes about science, its relevance, and their interpretations of sustainability? Journal of Geoscience Education, v.65, #2, p.203-214, <u>https://doi.org/10.5408/16-173.1</u>.
- Teasdale, R., Viskupic, K., Bartley, J.K., McConnell, D.A., Manduca, C., Bruckner, M., Farthing, D., and Iverson, E., 2017, A multidimensional assessment of reformed teaching practice in geoscience classrooms. Geosphere, v.13, #2, p.260-268, <u>https://doi.org/10.1130/GES01479.1</u>.
- Ryker, K.D., and McConnell, D.A., 2017, Assessing inquiry in physical geology laboratory manuals. Journal of Geoscience Education, v.65, #1, p.35-47, <u>https://doi.org/10.5408/14-036.1</u>.
- Manduca, C., Iverson, E., Luxenburg, M., Macdonald, H., McConnell, D.A., Mogk, D., and Tewksbury, B.J., 2017, Improving Undergraduate STEM Education: The Efficacy of Discipline-Based Professional Development. Science Advances, v.3, #2, e1600193, DOI: 10.1126/sciadv.1600193, <u>http://advances.sciencemag.org/content/3/2/e1600193</u>
- Czajka, C.D., and McConnell, D.A., 2016, Situated instructional coaching: A case study in Faculty Professional Development. International Journal of STEM Education, v. 3, #10, DOI: 10.1186/s40594-016-0044-1, <u>http://www.stemeducationjournal.com/content/3/1/10</u>
- Pelch, M. and McConnell, D.A., 2016, Challenging Instructors to Change: A mixed methods investigation on the effects of materials development on the pedagogical beliefs of geoscience instructors. International Journal of STEM Education, v.3, #5 DOI: 10.1186/s40594-016-0039-y, <u>https://rdcu.be/6qvd</u>
- 21. Grissom, A.N., Czajka, C.D., and McConnell, D.A., 2015, Revisions of Physical Geology Labs to Increase the Level of Inquiry: Implications for Teaching and Learning. Journal of Geoscience Education, v.63, #4, p.285-296.
- 22. Ryker, K.D., and McConnell, D.A., 2014, Can Graduate Teaching Assistants Teach Inquirybased Geology Labs Effectively? Journal of College Science Teaching, v.44, #1, p.56-63.
- 23. Lukes, L., and McConnell, D.A., 2014, What motivates introductory geology students to study for an exam? Journal of Geoscience Education, v.62, #4, p.725-735.
- 24. McConnell, D.A., and Steer, D.N., 2014, The Good Earth: An Introduction to Earth Science: 3rd edition, McGraw-Hill, 536 p.

Plus 44 additional publications prior to 2014, available upon request.

Non-reviewed Articles

1. McConnell, D., 2018, Making the first (and last) geoscience class count. Earth magazine, January, p.8-9.

- Shipley, T.F., McConnell, D.A., McNeal, K.S., Petcovic, H.L., and St.John, K.E., 2017, Transdisciplinary science education research and practice: Opportunities for GER in developing STEM discipline-based research alliance (DBER-A). Journal of Geoscience Education, v.65, #4 p.354-362. <u>https://doi.org/10.5408/1089-9995-65.4.354</u>
- 3. Goodell, L., McConnell, D., and Viskupic, K., 2016. 330 Learn, Network at Earth Educators Rendezvous 2016 in Madison Wisconsin. In the Trenches, v. 6, #3.
- 4. McConnell, D., 2013, Using research-based pedagogies to improve learning: Resources on the cutting edge. In the Trenches, v.3, #3.
- 5. McConnell, D., Bedward, J., Lukes, L., Ryker, K., 2012, Making student thinking about learning visible. In the Trenches, v.2, #2.

Web Resources

McConnell, D.A., Wiggen, J., and Jones, J., 2014-present, Geoscience Videos, <u>https://www.youtube.com/c/geosciencevideos</u>

Jones, J.P., McConnell, D.A., Rhodes, S. 2017-present, CLASS (Confidence-based Learning Accuracy Support System) <u>https://www.classforlearning.com/</u>

Edited Web Resources

- 1. Bentley, C., Berquist, P., and Gore, P.J.W., 2016, Carbon, climate and energy resources, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/152842</u>
- 2. Bhattacharyya, P., Branlund, J., and Joseph, L., 2016, Humans' dependence on Earth's mineral resources, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/92767</u>
- 3. Dunn, A., MacKay, R., and Resor, P., 2016, Earth's thermostat, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/164789</u>
- Fortner, S., Murphy, M., and Scherer, H., 2016, A Growing Concern: Sustaining soil resources through local decision making, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/92695</u>
- 5. Gilbert, L., Galster, J., and Ramage, J., 2016, Natural Hazards and Risks: Hurricanes, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/89371</u>
- 6. Gilbert, L., Gross, D., and Kreutz, K., 2016, Systems thinking, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/162989</u>
- Goodell, L., Selkin, P., and Teasdale, R., 2016, Living on the Edge: Building resilient societies on active plate margins, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/104296</u>
- 8. Holmgren, C., and Teed, R., 2016, Changing biosphere, edited by D. McConnell, InTeGrate: https://serc.carleton.edu/178064
- 9. Kinzel, M., Thompson, C., and Schnetzer, A., 2016, Ocean sustainability, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/165003</u>

- Perez, A., Schneiderman, J.S., Stewart, M., and Villalobos, J., 2016, Environmental Justice and freshwater resources, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/110197</u>
- 11. Shellito, C., Walker, B., Fadem, C., 2016, Climate of Change: Interactions and Feedbacks between Water, Air and Ice, edited by D. McConnell, InTeGrate: <u>https://serc.carleton.edu/86275</u>

Abstracts of Papers Presented at Professional Meetings

- 1. Sabatini, S.M., Jones, J.P., and McConnell, D.A., 2020, How do students respond when you provide them with 1000+ practice questions? Geol. Soc. Am. Abst. With Prog. V.52, #6, doi: 10.1130/abs/2020AM-358839.
- Atkins, R.M., Wegmann, K.W., Brewer, C., and McConnell, D., 2019, Geojourney: Improving undergraduate pathways into the geosciences through an outdoor experiential high schoolto-university bridge course. Geol. Soc. Am. Abst. With Prog. V.51, #5, doi: 10.1130/abs/2019AM-337509.
- Jones, J.P. and McConnell, D.A., 2019, The effect of altering course requirements towards fostering effective online practice testing behaviors in an introductory physical geology course: To grade or not to grade? Geol. Soc. Am. Abst. With Prog. V.51, #5, doi: 10.1130/abs/2019AM-339903.
- 4. Jones, J.P. and McConnell, D.A., 2019, Completing the Self-Regulation cycle: Utilizing online trace data to characterize student learning behaviors in introductory physical geology courses. Geol. Soc. Am. Abst. With Prog. V.51, #5, doi: 10.1130/abs/2019AM-339408.
- 5. Scherer, H.H., Callahan, C.N., McConnell, D.A., Ryker, K., and Egger, A.E., 2019, How to write a literature review article for JGE: Key strategies for a successful publication. Geol. Soc. Am. Abst. With Prog. V.51, #5, doi: 10.1130/abs/2019AM-333357.
- McConnell, D.A., 2018, Bringing a punk do-it-yourself ethos to creating geoscience learning resources. AGU abstract, ED51I-0737, <u>https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/400681</u>
- Jones, J.P., and McConnell, D.A., 2018, How do effort and judgments of learning during online practice quizzes predict exam outcomes in an introductory physical geology course? Geol. Soc. Am. Abst. With Prog. V.50, #6, doi: 10.1130/abs/2018AM-321213.
- 8. Jones, J.P., and McConnell, D.A., 2018. Accuracy and the pipeline: Analyzing the relationship between student perceptions of ability and exam performance across different types of institutions. Geol. Soc. Am. Abst. With Prog. V.50, #6, doi: 10.1130/abs/2018AM-321333.
- McConnell, D.A., Wegmann, K.W., Brewer, C., Wiggen, J., Jones, J.P., and Atkins, R.M., 2018. Lessons learned from the first year of a Geopaths project: What worked, what will change. Geol. Soc. Am. Abst. With Prog. V.50, #6, doi: 10.1130/abs/2018AM-322948.
- McConnell, D.A., Jones, J.P., Wiggen, J., and Bedward, J., 2018. An instructor-friendly guide to creating and assessing videos for geoscience courses. Geol. Soc. Am. Abst. With Prog. V.50, #6, doi: 10.1130/abs/2018AM-319447.

- McConnell, D.A., and Jones, J.P., 2018. Active learning for the under-resourced and overwhelmed instructor. Earth Educators' Rendezvous, Lawrence, KS, <u>https://serc.carleton.edu/earth_rendezvous/2018/program/demos/tuesdayA/201999.html</u>
- 12. Manduca, C., Blockstein, D., Bralower, T., Davis, F., D.Doser, D., Egger, A., Fox, S., Gilbert, L., Gosselin, D., Gragg III, R., Iverson, E., Kastens, K., McConnell, D., Nagy-Shadman, E., Huyck Orr, C., Steer, D., and Taber, J., 2017, InTeGrate project: Interdisciplinary teaching about the Earth for a sustainable future. Geophysical Research Abstracts, v.20, EGU2018-1109.
- Bruckner, M.Z., Manduca, C.A., McConnell, D.A., Hanselman, J., Huyck Orr, C., McDaris, J.R., and Fox, S.P., 2017. Using instructor stories to demonstrate the adaptability of the InTeGrate interdisciplinary sustainability curricula. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-300554.
- Czajka, C.D., and McConnell, D., 2017, An exploratory study examining the evolution of geology students' understanding of earth history and geologic time. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-308131.
- 15. Czajka, C.D., and McConnell, D., 2017, Examining the impact of the use of InTeGrate teaching materials on student performance on a geoscience literacy exam. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-308165.
- Jones, J., and McConnell, D., 2017, Identifying disparities between student perceptions of learning and the realities of performance within an introductory geoscience course. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-307621.
- 17. Jones, J., and McConnell, D., 2017, Better learning through feedback: Improving student performance and judgment accuracy in an introductory geoscience course. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-307717.
- McConnell, D., Ryker, K., Czajka, C.D., Chapman, L.Y., Jones, J.P., and Wiggen, J., 2017. Assessing the instructional utility and learning efficacy of common active learning strategies. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-305601
- McConnell, D., Jones, J., and Wiggen, J. 2017, Can undergraduates learn just as effectively from videos as lectures? Investigation of a flipped physical geology class. Geol. Soc. Am. Abst. With Prog. V.49, #6, doi: 10.1130/abs/2017AM-307684.
- 20. Chapman, L., and McConnell, D., 2017, Preparing future faculty: What experiences help shape beliefs about effective teaching? Conference on Higher Education Pedagogy, Virginia Tech, <u>http://www.cideronline.org/conference/presentation1.cfm?pid=3045</u>
- 21. Jones, J., and McConnell, D., 2017, CLASS: Characterizing student awareness of the learning through metacognitive monitoring and assessment. Conference on Higher Education Pedagogy, Virginia Tech, <u>http://www.cideronline.org/conference/presentation1.cfm?pid=3038</u>
- 22. Wiggen, J., and McConnell, 2017, Geoscience videos and their role in supporting student learning. Conference on Higher Education Pedagogy, Virginia Tech, http://www.cideronline.org/conference/presentation1.cfm?pid=3075

Plus 163 additional abstracts submitted prior to 2017, available upon request.

GRANTS External Funding

- National Science Foundation, \$480,225, IUSE, Applying a Digital Tool to Support Selfregulated Learning Strategies in Introductory Geoscience Courses, 2021, (PI)
- National Science Foundation, \$299,995, IUSE, Recalibrating Student Learning in Introductory Geoscience Courses Through the Use of a Web-based Assessment tool, 2017, (PI)
- National Science Foundation, \$296,338, GEOPATHS-IMPACT, *Expanding Geoscience Discovery Opportunities Beyond the Classroom*, 2017, (*PI*)
- National Science Foundation, \$355,508, TUES, *Flipping the Script: Using Short Videos to Promote Learning in Introductory Geoscience Courses,* 2013, (Overall PI for collaborative proposal with colleagues at NCSU, City College of San Francisco, Buena Vista University)
- National Science Foundation, \$773,910, Science, Technology, Engineering, and Mathematics Talent Expansion Program Centers (STEP Centers) *InTeGrate: Interdisciplinary teaching of Geoscience for a sustainable future*, 2012, (Co-PI for collaborative proposal with many colleagues at multiple institutions, PI for module development initiative; \$10 million total)
- National Science Foundation, \$77,525, CCLI Type 3 Collaborative Research: On the Cutting Edge: A community resource transforming geoscience education, 2010, (Co-PI for proposal with 7 colleagues from different institutions, running workshops and classroom observation project, \$1,553,462 total)
- National Science Foundation, \$252,541, CCLI Collaborative Research: GARNET II: Selfregulated learning and the affective domain in physical geology, 2010 (Overall PI for proposal with colleagues at CSU Chico, University of North Dakota, University of Colorado, Macalester College, Mesa Community College; \$597,000 total)
- National Science Foundation, \$145,736, CCLI Collaborative Research: GARNET (Geoscience Affective Research Network), 2008 (Overall PI for proposal with colleagues at CSU Chico, University of North Dakota, University of Colorado, Macalester College, North Hennepin Community College; \$263,583 total)

Plus 10 additional funded projects prior to 2008, available upon request.

University Funding

- Carnegie Teaching Academy, \$4,000 & College of Arts & Sciences, \$3000, University of Akron, 2000, *Reinventing Earth Science: A departmental initiative to reconfigure introductory level geology courses*
- Carnegie Teaching Academy, \$3,000, University of Akron, 1999, Incorporating the Learning Cycle/Peer Instruction into a web-enhanced introductory geology course
- Ohio Board of Regents Research Challenge Award, \$3,584 & Research Committee supplement \$500, University of Akron, 1994-1995, *Deformation within and adjacent to the Spread Eagle thrust sheet, Sangre de Cristo Range, Colorado*
- Faculty Summer Fellowship, \$7,000, University of Akron, 1991, Structural analysis of a basement-involved fault-bend fold in the Seminoe Mountains, Wyoming

• Bureau for General Research, \$1,050, Kansas State University, 1988-1989

TEACHING

Courses taught - North Carolina State University/ University of Akron/Kansas State University

- 1. Physical Geology
- 2. Structural Geology
- 3. Earth Science
- 4. Environmental Geology
- 5. Geology Field Camp
- 6. Natural Science Geology
- 7. Advanced Structural Geology
- 8. Ohio Minerals Workshop
- 9. Geology & Society
- 10. Seminar (Balanced cross-sections; Environmental Problems)
- 11. Field Methods
- 12. Discipline-based Education Research in the Geosciences

Teaching Related Activities & Awards

- NC State Alumni Association Distinguished Undergraduate Professor, 2020
- Geological Society of America Fellow, 2016
- Workshop facilitator for On the Cutting Edge professional development program, 2011-2015.
- Workshop facilitator for the National Association of Geoscience Teachers (NAGT) Building Stronger Geoscience Courses program, 2013-2015.
- Planning committee member, Future of Undergraduate Geoscience Education summit, January 2014, University of Texas, Austin, TX.
- College of Physical and Mathematical Sciences Outstanding Teacher Award, 2012
- National Association of Geoscience Teachers Neil Miner Award, 2010 <u>Plus 18 additional awards/activities prior to 2010, available upon request.</u>

Invited presentations on teaching (without associated publications)

- 1. *Redesigning an Introductory Geoscience course to promote more effective student learning strategies,* presentation for School of Earth, Ocean and Environment, University of South Carolina, November 2020
- 2. What Research Tells Us About Effective Teaching (and Learning) Strategies That We (and Our Students) Will Actually Use, presentation for Research Academy for University Learning, Montclair State University, October 2019
- 3. What Research Tells Us About Effective Teaching (and Learning) Strategies That We (and Our Students) Will Actually Use, presentation for School of Earth, Society and Environment, University of Illinois at Urbana-Champaign, October 2019

- 4. *Instruction designed to promote more effective student learning strategies*, presentation at Gordon Research Conference in Chemistry Education Research and Practice, Bates College, ME, June, 2019
- 5. *Instructional reform in the Geosciences,* presentation during AAAS Levers for Change meeting, HHMI, Maryland, May, 2018
- 6. *Predicting the Future of What, How, and Where We Teach and Learn in University Geoscience Programs,* presentation for University of Kansas, Department of Geology Spring Celebration symposium, May, 2018

Plus 70 additional presentations prior to 2018, available upon request.

GRADUATE DEGREES AWARDED (NC STATE)

- Czajka, C.D., 2018, Assessing Learning and Teaching across Geoscience Courses and Curricula. Ph.D. NCSU 103 pages. (Currently Assistant Professor, Utah Valley University)
- Chapman, L.T.Y. 2017, Factors Affecting the Development and Evolution of the Teaching Beliefs of Future Geoscience Professors. Ph.D. NCSU 131 pages (Currently Visiting Assistant Professor, Davidson College)
- Jones, J.P., 2017, Effects of Iterative Course Changes on Student Performance, Confidence, and Metacognitive Monitoring Accuracy within an Undergraduate Introductory Geoscience Course. MS. NCSU, 93 pages. (see below)
- Jones, J.P., 2020, Recalibrating Student Learning in Introductory Geoscience Courses through the Use of a Web-based Assessment Tool. Ph.D. NCSU, 185 pages. (Currently Post-doc, NC State University)
- Pelch, M.A., 2016, Exploring how teaching materials influence the beliefs and practices of Instructors and students' attitudes about geoscience. Ph.D. NCSU, 169 pages. (Currently Assistant Professor of Professional Practice, Texas Christian University)
- Czajka, C.D., 2014, Two case studies in reforming undergraduate geoscience education: Instructional change in a lecture class and increasing inquiry in a geologic time lab. MS. NCSU, 99 pages. (See above)
- Grissom, A.N., 2014, The effect of inquiry on student performance, perception of relevance, and situational interest in undergraduate rock and mineral labs. MS NCSU, 151 pages. (Currently Earth Science teacher, Wake County Public Schools)
- Lukes, L.A., 2014, Why do they do that? An analysis of student learning processes and perceptions in introductory geology courses. Ph.D. NCSU, 132 pages. (Currently Assistant Professor, University of British Columbia)
- Ryker, K.D., 2014, An evaluation of classroom practices, inquiry and teaching beliefs in introductory geoscience classrooms. Ph.D. NCSU, 128 pages. (Currently Assistant Professor, University of South Carolina)

Smith, H.J., 2014, What do students find relevant in an introductory geology course? Implications for changing students' attitudes about the relevance of geoscience in society. MS. NCSU, 95 pages. (Currently PhD student, University of Georgia)

ACTIVITY IN DISCIPLINE AND BEYOND

- AAAS IUSE Summit Advisory Board member, 2019-present
- Member of Vision & Change in Geosciences writing team, 2018-present
- Past President of the National Association of Geoscience Teachers, 2019-2020
- President of the National Association of Geoscience Teachers, 2018-2019
- Vice president of the National Association of Geoscience Teachers, 2017-2018
- 2nd vice president of the National Association of Geoscience Teachers, 2016-2017
- Member of Executive Committee, National Association of Geoscience Teachers, 2016present
- Co-chair, Earth Educators' Rendezvous, July 2016, University of Wisconsin, Madison, WI. <u>Plus 14 additional items prior to 2016, available upon request</u>.

SERVICE (since 2010)

University

- NCSU CIRTL Advisory Committee (2016-2017)
- Graduate School Representative, PhD committee, Public Policy (2015)
- Faculty Scholar/Director, Office of Faculty Development (2009-2012)
- University Grievance Committee (2009-2012)

College

- Teaching Award Committee (2017-present)
- Summer course redesign project leader (2105, 2016)
- Open house participant (2012-2014)

Department

- Search committee member, Rapid change (2021-2011)
- Search committee chair, Instructor (2018)
- TAAC member for Earth Science (2018-present)
- Chair, Teaching Assistant Advisory Committee (TAAC), (2015-2018)
- Curriculum committee (2017-present)
- Search committee chair, Geoscience Education (2012-2013)