

**Dr. Maria Ferris Greene Wallace**  
University of Southern Mississippi  
Assistant Professor  
Center for STEM Education  
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## **Education**

- PHD, Louisiana State University and Agricultural & Mechanical College, 2017.  
Major: Curriculum and Instruction  
Supporting Areas of Emphasis: Curriculum Theory & Science Education  
Dissertation Title: Deterritorializing Dichotomies in Teacher Induction: A (Post)Ethnographic Study of Un/Becoming an Elementary Science Teacher
- MA, Trinity University, 2010.  
Major: Education, General
- BS, Millsaps College, 2009.  
Major: Geology/Earth Science, General

## **Licensures and Certifications**

- Texas Education Agency (TExES), Early Childhood-6th Grade Generalist. (May 2010 - Present).
- Title IX: Preventing Sexual Misconduct for Faculty and Staff – "Responsible Employee" Edition, Office of Compliance & Ethics. (December 20, 2019 - December 20, 2021).
- School Reform Initiative: Trinity University, Critical Friends Group Coach. (2012 - 2013).

## **Professional Positions**

- Assistant Professor of Science Education, Center for STEM Education, University of Southern Mississippi. (July 2021 - Present).
- Affiliate Faculty, Women's & Gender Studies Program, University of Southern Mississippi. (2020 - Present).
- Assistant Professor of Elementary Education, School of Education, University of Southern Mississippi. (July 2019 - June 2021).
- Assistant Professor of Education, Millsaps College, Jackson, MS. (August 2017 - June 2019).
- Graduate Research Assistant, Louisiana State University – School of Education. (2013 - May 2017).
- Graduate Assistant, Louisiana State University- Communication across the Curriculum (CxC) College of Science. (May 2014 - 2016).
- Graduate Assistant, Louisiana State University-Communication across the Curriculum (CxC) College of Science. (2013 - 2014).
- 6th Grade Science Teacher, Boston Collegiate Charter School. (2012 - 2013).
- Lead Science Teacher, 3rd-5th Grades, Port Houston Elementary, TEA Exemplary School. (2010 - 2012).
- Elementary Science Curriculum Development Consultant, Accelerate Learning (STEMscopes)-Rice University. (June 2011 - October 2012).

## Publications

### Accepted

1. Tolbert, S., Wallace, M. F. G., Bazzul, J., & Higgins, M. (Eds.). (2023). *Reimagining Science Education in the Anthropocene - Volume 2* (S. Tolbert, M. F. G. Wallace, J. Bazzul, & M. Higgins, Eds.). Palgrave MacMillan.
2. Wallace, M. F. G., & Higgins, M. (2023). Amplifying Science Education Research with(in) a Minor Key. In *Reimagining Science Education in the Anthropocene - Volume 2*. Palgrave Mac Millan.

### Published

1. Han, S., Wallace, M. F. G., Robinson-Morris, D., & Eaton, P. (2023). Where Concept and Life Meet. In *Curriculum Histories in Place, In Person, in Practice: The Louisiana State University Curriculum Theory Project*. Routledge.
2. Smith, E., Kayser, C., Wallace, M. F. G., & Bosnake, A. (2023). Soar Into STEMed: Examining the Impact of a Service-Learning Internship on Future Teachers' Conceptions of Culturally Responsive Teaching. *Education Sciences*. Published. <https://www.mdpi.com/2227-7102/13/6/552>
3. Eaton, P., Robinson-Morris, D., Han, S., & Wallace, M. F. G. (2023). Dear Friends of Minds: Letters on Being and Becoming. In *Curriculum Histories in Place, in Person, in Practice: The Louisiana State University Curriculum Theory Project*. Routledge.
4. Wallace, M. F. G., Rust, J., & Jolly, E. (2023). 'It's all there.': Entanglements of teacher preparation and induction. In *Non-Linear Perspectives on Teacher Development: Complexity in Professional Learning and Practice*. Routledge.
5. Wallace, M. F. G., Bazzul, J., Higgins, M., & Tolbert, S. (2022). Introduction. In *Reimagining Science Education in the Anthropocene - Volume 1* (pp. 1–13). [https://link.springer.com/chapter/10.1007/978-3-030-79622-8\\_1](https://link.springer.com/chapter/10.1007/978-3-030-79622-8_1)
6. Wallace, M. F. G., & Smith, E. M. (2022). On my own: The challenge and promise of building equitable stem transfer pathways. *Community College Journal of Research and Practice*. Published.
7. Mahy, B., & Wallace, M. F. G. (2022). The science-ethics nexus: a speculative posthumanist examination of secondary school science. *Cultural Studies of Science Education*. Published. <https://link.springer.com/article/10.1007/s11422-021-10089-x>
8. Wallace, M. F. G., Bazzul, J., Higgins, M., & Tolbert, S. (Eds.). (2022). *Reimagining Science Education in the Anthropocene - Volume 1* (M. F. G. Wallace, J. Bazzul, M. Higgins, & S. Tolbert, Eds.). Palgrave MacMillan. <https://link.springer.com/book/10.1007/978-3-030-79622-8>
9. Wallace, M. F. G., Bazzul, J., Higgins, M., & Tolbert, S. (2022). Another complicated conversation. In *Reimagining Science Education in the Anthropocene - Volume 1*. Palgrave MacMillan. <https://link.springer.com/book/10.1007/978-3-030-79622-8>
10. Nuxmalo, F., & Wallace, M. F. G. (2022). In Conversation with Fikle Nxumalo: Refiguring onto-epistemic attunements for im/possible science pedagogies. In *Reimagining Science Education in the Anthropocene - Volume 1: Vol. 1*. Palgrave MacMillan. <https://link.springer.com/book/10.1007/978-3-030-79622-8>
11. Wallace, M. F. G., Carmicheal, B., & Hall, J. (2021). *Dear STEM, It's time for some identity work..* American Association for the Advancement of Science (AAAS). <https://www.aaas-iuse.org/blog/>
12. Wallace, M. F. G., Jolly, E., & Rust, J. (2021). "It's all there.": Entanglements of Teacher Preparation and Induction. *Professional Development in Education*. Published. <https://www.tandfonline.com/doi/full/10.1080/19415257.2021.1887921>
13. Wallace, M. F. G., & Smith, E. M. (published). On my own: The challenge and promise of building equitable stem transfer pathways. *Community College Journal of Research and Practice*.
14. Byers, C., & Wallace, M. F. G. (2021). A Story of Bodying in Science Education. *Cultural Studies of Science Education*. Published. <https://doi.org/10.1007/s11422-021-10054-8>
15. Wallace, M. F. G. (2019). Multiplicitous moments: The inculcation, abstraction, and resistance of the novice science teacher. In *Critical Voices in Science Education Research: Narratives of Academic Journeys*. Springer International. [https://link.springer.com/chapter/10.1007/978-3-319-99990-6\\_20](https://link.springer.com/chapter/10.1007/978-3-319-99990-6_20)

16. Higgins, M., Wallace, M. F. G., & Bazzul, J. (2019). Staying with the trouble in science education: Towards thinking with nature. In *Posthumanism and Higher Education: Reimagining Pedagogy, Practice and Research*. Palgrave MacMillan. <https://www.palgrave.com/gp/book/9783030146719>
17. Wallace, M. F. G. (2019). Showtime: The biopolitical performance of ‘effective beginning science teacher.’ *Cultural Studies of Science Education*. Published. <https://doi.org/10.1007/s11422-018-9885-x>
18. Wallace, M. F. G. (2018). Becoming-with/in educational research: Minor accounts as care-full inquiry. In *Decentering the Researcher in Intimate Scholarship*. <https://www.emerald.com/insight/content/doi/10.1108/S1479-368720180000031013/full/html>
19. Wallace, M. F. G., & Byers, C. (2018). Duo-Currere: Nomads in Dialogue (Re)searching for Possibilities of Permeability in Elementary Science Teacher Education. *Currere Exchange Journal*, 2(1). <https://www.currereexchange.com/uploads/9/5/8/7/9587563/cejv2i1wallacebyers.pdf>
20. Higgins, M., Wallace, M. F. G., & Bazzul, J. (2018). Disrupting and displacing methodologies in STEM education: From engineering to tinkering with theory for eco-social justice. *Canadian Journal of Science, Mathematics, and Technology Education*, 18(3), 187–192. <https://doi.org/https://doi.org/10.1007/s42330-018-0020-5>
21. Wallace, M. F. G., Higgins, M., & Bazzul, J. (2018). Thinking with nature: Following minor concepts for ethico-political response-ability in science education. *Canadian Journal of Science, Mathematics, and Technology Education*, 18(3), 199–209. <https://doi.org/https://doi.org/10.1007/s42330-018-0026-z>
22. Wallace, M. F. G. (2018). The paradox of un/making science people: Practicing ethico-political hesitations in science education. *Cultural Studies of Science Education*, 13(4), 1049–1060. <https://doi.org/10.1007/s11422-017-9831-3>
23. Bazzul, J., Wallace, M. F. G., & Higgins, M. (2018). Dreaming and immanence: Rejecting the dogmatic image of thought in science education. *Cultural Studies of Science Education*. Published. <https://doi.org/10.1007/s11422-017-9816-2>
24. Wu, J., Eaton, P. W., Robinson-Morris, D. W., Wallace, M. F. G., & Han, S. (2018). Perturbing possibilities in the post qualitative turn: Lessons from taoism (道) and ubuntu. *International Journal of Qualitative Studies in Education*, 31(6), 504–519. <https://doi.org/10.1080/09518398.2017.1422289>
25. Wallace, M. F. G. (2017). Subjects in the threshold: Opening-up ethnographic moments that complicate the novice/veteran science teacher binary. *Issues in Teacher Education*, 26(6), 96–110. <https://eric.ed.gov/?id=EJ1157175>
26. Wallace, M. F. G., & Webb, A. W. (2016). In the midst of a shift: Undergraduate STEM education and “PBL” enactment. *Journal of College Science Teaching*, 46(2), 47–55. <https://eric.ed.gov/?id=EJ1119858>
27. Wallace, M. F. G. (2016). Trash or treasure: Re-conceptualizing my ruins as a tool for re-imagining the nature of science teacher education. In *Allowing our professional knowledge of pre-service science teacher education to be enhanced by self-study research: Turning a critical eye on our practice*. (pp. 341–362). Springer International Publishing Switzerland. [https://doi.org/10.1007/978-3-319-32447-0\\_18](https://doi.org/10.1007/978-3-319-32447-0_18)
28. Webb, A. W., Bunch, J. C., & Wallace, M. F. G. (2015). Agriscience teachers’ implementation of digital game-based learning in an introductory animal science course. *Journal of Science Education and Technology*, 24(6), 888–897. <https://doi.org/10.1007/s10956-015-9571-7>

### Submitted

1. Webb, A., & Wallace, M. F. G. (submitted). Professional Learning Communities: One Context Where Multiple Meanings of Induction and Identity Work Emerge for Newly Hired Science Teachers. *Journal of Research on Science Teaching*.

### Presentations

#### International

1. Gunter, K., Wallace, M. F. G., "A story under erasure: Complicating ‘the promise’ of the affective turn within science identity research through feminist reflexivity," European Science Education Research Association. (August 2023).

2. Wallace, M. F., Byers, C., "Complexifying Identity in Science Education: Affective Mo(ve)ments of, In-Between, and Beyond Consolidating Bodies (of Work)," American Education Research Association (AERA), Chicago, IL, United States. (April 2023).
3. Wallace, M. F. G., "Utilizing Complex Theories to Expand Conceptions of Effective Science Teacher Education," American Educational Research Association (AERA), Chicago, IL, United States. (April 2023).
4. Wallace, M. F. G., Smith, E., Lanius, A., Drum, C., Cumpton, J., Howe, G., "Rendering Complex Stories of Effective STEM Teaching & Learning Visible," Association for Science Teacher Education (ASTE), Salt Lake City, UT, United States. (January 2023).
5. Wallace, M. F. G., Byers, C., Schaffer, K., Fine, C., Hall, J., Hennessy Elliott, C., "Science Teacher Educators Working for Care-full Change: Dimensions, Provocations, and Movements," Association for Science Teacher Education (ASTE), Salt Lake City, UT, United States. (January 2023).
6. Wallace, M. F. G. (Chair), Tolbert, S. (Co-Chair), Bencze, L. (Presenter), Adsit-Morris, C. (Presenter), Kirchgasser, K. (Discussant), Cultivating Equitable Education Systems for the 21st Century, "De-signing Science Education in the Anthropocene," American Education Research Association, Virtual. (April 2021).
7. Wallace, M. F. G. (Chair), Askew, R. (Presenter), Weiland, T. (Presenter), Weinstein, M. (Presenter), Ryker, K. (Presenter), Adsit-Morris, C. (Presenter), Collins, D. (Presenter), Bencze, L. (Presenter), Tolbert, S. (Discussant), Science Education, A Public Good for the Good of the Public? Research to Empower, Evoke, and Revolutionize, "Reimagining Science Education in the Anthropocene," National Association of Research on Science Teaching, Virtual. (April 2021).
8. Wallace, M. F. G. (Presenter), Jolly, E. (Presenter), Rust, J. (Presenter), Cultivating Equitable Education Systems for the 21st Century, "When Teacher Preparation and Induction Collide: Deterritorializing Dichotomies of (Un)Certain Work within Teacher Residency Experiences," American Educational Research Association. (April 2021).
9. Wallace, M. F. G., "Science Stories, Life History, & Questioning Education," Yeah Kids Daoshi, China. (September 2020).
10. Wallace, M. F. G., Perfecting Your Vision for Teacher Training, "Re-thinking Elementary Science Teacher Preparation 'As Usual': A Posthumanist Perspective," Association for Science Teacher Education (ASTE), San Antonio, United States. (January 2020).
11. Bowers, N., Wallace, M. F. G., Reclaiming the Profession: Science Teaching & Science Teacher Education as Social Justice, "Defying gravity: Matters of joy-full resistance to neoliberal 'orbits of practice' in STEM teacher education," Science Educators for Equity, Diversity, and Social Justice (SEEDS), Norfolk, VA, United States. (October 2019).
12. Bazzul, J., Wallace, M. F. G., Higgins, M., "Science Education and the Anthropocene(s)," Society for the Social Studies of Science (4S), New Orleans, LA, United States. (September 2019).
13. Byers, C., Jones, A., Wallace, M. F. G., Qualitative Inquiry and the Politics of Resistance, "'You were fearless!'" Thinking with/through horseshoe crabs toward intersectional justice., " International Congress of Qualitative Inquiry (ICQI), Champaign-Urbana, IL, United States. (May 2019).
14. Matthews, K., Wallace, M. F. G., The Power and Possibilities for the Public Good: When Researchers and Organizational Stakeholders Collaborate, "Deconstructing a Discourse: Navigating and Negotiating "Equity in STEM Education" Within Preservice Elementary Teacher Education," American Educational Research Association (AERA), Toronto, Canada. (April 2019).
15. Wallace, M. F. G., Strom, K., "Kinds of teachers: Pursuing a posthuman engagement with(in) ideas about 'good teaching.," American Educational Research Association (AERA), Toronto, Canada. (April 2019).
16. Matthews, K., Wallace, M. F. G., The Power and Possibilities for the Public Good: When Researchers and Organizational Stakeholders Collaborate, "Re-visiting 'Equity in STEM Education': Preparing Teachers to Work within a Dynamic Discourse," American Educational Research Association (AERA), Toronto, Canada. (April 2019).

17. Bazzul, J., Higgins, M., Wallace, M. F. G., "Disrupting and displacing methodologies in STEM education: Tinkering with theory towards eco-social justice," Canadian Conference on the Study of Education (CCSE), Regina, Canada. (June 2018).
18. Wallace, M. F. G., "Deterritorializing dichotomies in qualitative research: Might we make (post)ethnographic movements?," American Educational Research Association (AERA), New York, NY. (April 2018).
19. Krishnamorthy, S., Radke, S., Wallace, M. F. G., "Matter and meaning: Deconstructing curriculum in STEM education for social justice.," Science Educators for Equity, Diversity, and Social Justice (SEEDS), Sacramento, CA. (January 2018).
20. Wallace, M. F. G., "Innately performative: A (post)ethnographic study of un/becoming an elementary science teacher.," The Bergamo Conference on Curriculum Theory and Classroom Practice, Dayton, OH. (October 2017).
21. Han, S., Robinson-Morris, D., Wallace, M. F. G., "Living theory: Embracing a slow curriculum in an age of speed," The Bergamo Conference on Curriculum Theory and Classroom Practice, Dayton, OH. (October 2017).
22. Han, S., Wallace, M. F. G., "Mo(ve)ments in re-thinking the induction of the 'child' and 'novice teacher'.," The Bergamo Conference on Curriculum Theory and Classroom Practice, Dayton, OH. (October 2017).
23. Byers, C., Wallace, M. F. G., "POP-ing science teacher education: Exploring possibilities of permeability through nomadic engagements.," The Bergamo Conference on Curriculum Theory and Classroom Practice, Dayton, OH. (October 2017).
24. Wallace, M. F. G., "Showtime: Biopolitics and becoming an effective beginning science teacher," American Educational Research Association (AERA), San Antonio, TX, United States. (June 2017).
25. Wallace, M. F. G., "Teacher as student: Biopolitics and re-thinking teacher effectiveness.," American Educational Research Association (AERA), San Antonio, TX. (May 2017).
26. Flannigan, A. E., Bullock, E. P., Merrin, G., Cho, A. R., Wallace, M. F. G., Sun, W.-L., "Navigating AERA's multiple offerings with K. L. Siriboe, & French, K. R.," American Educational Research Association (AERA), San Antonio, TX. (April 2017).
27. Wallace, M. F. G., Louisiana State University Curriculum Camp, "Deterritorializing Dichotomies in Science Teacher Induction : A Post <+> Ethnographic Study.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA. (February 2017).
28. Wallace, M. F. G., Stevenson, K., Louisiana State University Curriculum Camp, "Engaging diffractive fissures: Becoming-teachers with(in) science education.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA. (February 2017).
29. Wallace, M. F. G., "Allowing our professional knowledge of pre-service science teacher education to be enhanced by self-study research: Turning a critical eye on our practice.," Association for Science Teacher Education (ASTE), Des Moines, IA. (January 2017).
30. Wallace, M. F. G., "Ontological engagements: How might we (un)know the beginning science teacher," Association for Science Teacher Education (ASTE), Des Moines, IA. (January 2017).
31. Wu, J., Eaton, P. W., Wallace, M. F. G., Han, S., Robinson-Morris, D., "Post-qualitative mo(ve)ments I: Curations," International Congress of Qualitative Inquiry (ICQI), Champaign-Urbana, IL. (May 2016).
32. Wallace, M. F. G., "Allowing our professional knowledge of pre-service science teacher education to be enhanced by self-study research: Turning a critical eye on our practice.," National Association for Research on Science Teaching (NARST), Baltimore, MD. (April 2016).
33. Wallace, M. F. G., "Multiplicities of multiplicities: Exploring Deleuze and Guattari across educational contexts.," American Educational Research Association (AERA), Washington, DC. (April 2016).
34. Eaton, P., Han, S., Mitchell, G., Robinson-Morris, D., Wallace, M. F. G., Louisiana State University Curriculum Camp, "Deleuze and Guattari across Educational Contexts: New Lines of Flight.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA. (February 2016).

35. Wallace, M. F. G., Louisiana State University Curriculum Camp, "'The dog and pony show': The biopolitical production of the effective teacher.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA. (February 2016).
36. Wallace, M. F. G., "Currere as a de-colonizing practice for newly "inducted" science teachers.," International Association for the Advancement of Curriculum Studies (IAACS), Ottawa, Canada. (May 2015).
37. Wallace, M. F. G., Louisiana State University Curriculum Camp, "Critical autobiographical inquiry as a de-colonizing practice for pre-service and in-service science teachers.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA. (March 2015).
38. Wallace, M. F. G., "Finding peace in the rummage: Re-conceptualizing my ruins.," Curriculum and Pedagogy (C&P), New Orleans, LA, United States. (November 2014).
39. Eaton, P., Ricks, T., Han, S., Morton, B., Frazier, M., Nguyen, K., Morris, D. R., Underwood, J., Wallace, M. F. G., "There are mountains in the sea: Convivial conversation between intellectual and spiritual traditions.," Curriculum and Pedagogy (C&P), New Orleans, LA. (November 2014).
40. Wallace, M. F. G., Louisiana State University Curriculum Camp, "Science as inquiry and the implicit overlap of the nature of science.," Louisiana State University Curriculum Theory Project, Baton Rouge, LA, United States. (February 2014).

### **Local**

1. Svatek, R. A., Buford, K. D., Downing, A. A., Wallace, M. F. G., Cwikla, J. C., USM Research Day, "Permission to Witness: Expanding the Learning Classroom Community through STEM on Demand," The University of Southern Mississippi, Hattiesburg, MS, United States. (November 12, 2021).
2. Arrazattee, C. L., Wallace, M. F. G., Bomhold, C., Foley, C. D., "Service-Learning for Diverse Student Populations," USM Center for Community Engagement, USM Faculty Development Center. (October 2020).

### **National**

1. Matthews, K., Wallace, M. F. G., "A dynamic discourse: Re/examining 'equity in STEM education' as communication, collaboration, and community.," Curriculum and Pedagogy (C&P), New Orleans, LA. (October 2018).

### **Regional**

1. Lanius, A., Wallace, M. F. G., Howe, G., Cumpton, J., "Boundless Opportunities: Science Teacher Education through Informal Science Institutions (ISIs)," Southeastern Association for Science Teacher Educators (SASTE), Gulf Shores, AL, United States. (October 2022).
2. Gisewhite, R. A., Buford, K. D., Downing, A. A., Cwikla, J. C., Wallace, M. F. G., North Carolina PKAL Regional Network Meeting, "Pivoting in a Pandemic: Enhancing STEM Learning and Expanding the Classroom Community through STEM on Demand," AAC&U Project Kaleidoscope (PKAL), Virtual, NC. (February 4, 2022).
3. Wallace, M. F. G., "Science for whom? Deconstructing bias and diversity in science education (Faculty Workshop)," Texas A&M Galveston. (November 2020).
4. Wallace, M. F. G., "Science for whom? Deconstructing bias and diversity in science education (Student Workshop)," Texas A&M Galveston. (November 2020).
5. Wallace, M. F. G., "Exploring the Multidimensional Landscape of Science Education: Implications for Enhancing Equity & Justice in Science," University of Southern Mississippi - Center for Science & Mathematics Education, USM Marine Education Center & Virtual, Ocean Springs, MS, United States. (February 4, 2020).
6. Han, S., Wallace, M. F. G., "Child? Novice? A re-vision from Deleuze and Guattari," Mid-South Educational Research Association (MSERA), Mobile, AL. (November 2016).
7. Wallace, M. F. G., "Ontological dichotomies in science teacher induction," Mid-South Educational Research Association (MSERA), Mobile, AL. (November 2016).
8. Wallace, M. F. G., Webb, A. W., "In the midst of a shift: Post-secondary engineering education and project-based learning.," Louisiana Educational Research Association (LERA), Lafayette, LA. (March 2015).

9. Wallace, M. F. G., "A critical piece to understanding: Student voice and reflection.," Louisiana Science Teacher Association (LSTA), Shreveport, LA. (October 2014).
10. Webb, A. W., Wallace, M. F. G., "Thinking outside the box: Incorporating the nature of science.," Louisiana Science Teachers Association Conference (LSTA), Baton Rouge, LA, United States. (November 2013).

## **Contract, Fellowships, Grants and Sponsored Research**

### **Awarded**

1. Cwikla, J. C. (PI), Buford, K. D. (COPI), Wallace, M. F. G. (COPI), Gisewhite, R. A. (COPI), "Growing a STEM Ecosystem: Mississippi's Center for STEM Education," Sponsored by U.S. Department of Education, Federal, \$1,500,000.00. (June 1, 2023 - May 31, 2024).
2. Wallace, M. (PI), Karim, S. (COPI), Wallace, J. K. (COPI), Morgan, S. E. (COPI), "Advancement Women in Natural Sciences (Advancement WiNS) - Year 2," Sponsored by Jimmy A. Payne Foundation, Foundation, \$90,000.00. (July 2022 - June 2023).
3. Wallace, M. F. G., Smith, E. (COPI), "Soar into STEM: Future Teachers & Community Partners," Sponsored by Jimmy A. Payne Foundation, Foundation, \$56,000.00. (August 2022 - June 2023).
4. Wallace, M. F. G., "Rendering An/other Capable: Posthuman Possibilities for Intersectional Justice within Science Teacher Preparation," Sponsored by Spencer Foundation, Foundation, \$49,000.00. (July 2019 - June 2023).
5. Donaldson, J. R. (PI), Karim, S. (COPI), Morgan, S. E. (COPI), Wallace, J. K. (COPI), Wallace, M. F. G. (COPI), "ADVANCEMENT OF WOMEN IN NATURAL SCIENCES (ADVANCEMENT WiNS) - Year 1," Sponsored by Jimmy A. Payne Foundation, Foundation, \$80,206.00. (August 2021 - June 2022).
6. Wallace, M. F. G., "(Re)Visioning Millsaps Education Curricula," Sponsored by Associated Colleges of the South (ACS), Other, \$15,500.00. (December 2017 - May 2019).

### **NOT FUNDED**

1. Lee, S. B. (PI), Cwikla, J. C. (COPI), Buford, K. D. (COPI), Wallace, M. F. G. (COPI), Cullum, T. A. (COPI), "Mississippi Coding Academies Scaling for Equity," Sponsored by W. K. Kellogg Foundation, Foundation, \$19,128,000.00. (August 1, 2021 - July 31, 2031).
2. Wang, X. (PI), Mojica, K. D. A. (COPI), Wallace, M. F. G. (COPI), Clemons, T. D. V. (COPI), Miller-Way, T. (COPI), "Detection and quantification of micro- and nano-plastics suspended in the ocean," Sponsored by National Oceanographic & Atmospheric Administration (NOAA), Federal, \$2,072,213.00. (January 2023 - December 2025).
3. Wallace, M. F. G. (PI), Hall, M. S. (COPI), Mojica, K. D. A. (COPI), Karim, S. (COPI), Wallace, J. K. (COPI), "Gender Equity Movement in STEM (GEMS)," Sponsored by Payne Foundation, Foundation, \$127,040.62.
4. Wallace, M. F. G., Smith, E. (COPI), Cumpton, J. (COPI), "Spaces, Places, and People: Navigating and Negotiating Science and Mathematics Expertise in a Symbiotic Community Partnership," Sponsored by Spencer Foundation, Foundation, \$385,153.00.
5. Morgan, S. E., Hamdan, L. J., Wallace, J. K., Wallace, M. F. G., Karim, S., "ADVANCE ADAPTATION: Gender Equity Movement in STEM (GEMS)," Sponsored by National Science Foundation (NSF), Federal, \$1,000,000.00.
6. Wallace, M. F. G., "CAREER: Employing a Complex View of Science & Society to Nurture Decolonizing Work in Science Teacher Development," Sponsored by National Science Foundation (NSF), Federal, \$1,694,947.00.
7. Wallace, M. F. G., Smith, E. (COPI), "Soar into STEM: A Community-based Teacher Residency Program," Sponsored by W. K. Kellogg Foundation, Foundation, \$1,500,000.00.
8. Mojica, K. D. A. (PI), Wallace, M. (COPI), Clemons, T. D. (COPI), Cwikla, J. C. (COPI), "STEM(ED) Ambassadors: Payne Scholarship Program for Cultivating Innovative Scientists & Educators," Sponsored by Payne Foundation, Foundation, \$162,276.00.
9. Wallace, M. F. G. (PI), Broome, J. H. (COPI), Cwikla, J. C. (COPI), Heinhorst, S. (COPI), "Building Mississippi Networks for Equity-Driven K-12 STEM Teacher↔Scholars," Sponsored by National Science Foundation, Federal, \$1,200,000.00.

10. Wallace, M. F. G. (PI), "Cultivating Complicated Conversations in Education for Enhancing Equity-Driven Teacher Preparation," Sponsored by USM Foundation, University of Southern Mississippi, \$5,000.00.
11. Wallace, M. F. G. (PI), Cwikla, J. (COPI), Heinhorst, S. (COPI), Broome, H. (COPI), "Building Mississippi Networks for Equity-Driven K-12 STEM Teacher Scholars," Sponsored by National Science Foundation, Foundation, \$993,388.00.
12. Wallace, M. F. G., "Science Teacher Education & Induction: Educating at the Nexus of Thriving Communities & Scientific Research," Sponsored by National Academies of Science - Gulf Research Program, Federal, \$75,000.00.

### **Submitted**

1. Wallace, M. F. G., "CAREER: Employing a Complex View of Science & Society to Nurture Decolonizing Work in Science Teacher Development through Informal Community-based Research & Education," Sponsored by National Science Foundation, Federal, \$1,495,532.00. (June 2024 - Present).
2. Wallace, M. F. G., "Early Career Fellowship - Education Track," Sponsored by National Academies of Science - Gulf Research Program, Federal, \$75,000.00.

### **Withdrawn**

1. Wallace, M. F. G., Smith, E. (COPI), Cumpston, J. (COPI), Arrazattee, C. L. (COPI), "Soar into STEMed: Strengthening USM STEM(ed) Students through Community Partnerships," Sponsored by Jimmy A. Payne Foundation, Foundation, \$108,183.24.

## **Awards and Honors**

### **College**

1. Junior Faculty Award, USM College of Arts & Sciences. (April 2023).
2. Nominated for: Scholarly Researcher of the Year, USM College of Arts & Sciences. (March 2023).
3. 2017 Distinguished Dissertation Award, LSU College of Human Sciences & Education. (May 2018).
4. Von Brock Memorial Scholarship, LSU College of Human Sciences & Education. (January 2017).
5. Von Brock Memorial Scholarship, LSU College of Human Sciences & Education. (August 2016).
6. Lillian Oleson Scholarship, LSU College of Human Sciences & Education. (January 2015).
7. Lillian Oleson Scholarship, LSU College of Human Sciences & Education. (August 2014).

### **Department**

1. 2017 Most Distinguished Dissertation Award, LSU School of Education. (January 2018).
2. Best 2016 Peer-Reviewed Book Chapter Award, LSU School of Education. (April 2017).
3. Nominated for: Dissertation Fellowship Nominee, LSU School of Education - Graduate School. (September 2016).

### **International**

1. 2019 Paper of the Year, Cultural Studies of Science Education. (April 2020).

### **Local**

1. Scholarship, Professional Women of St. Tammany. (January 2017).
2. Scholarship, Professional Women of St. Tammany. (August 2016).
3. Merit-Based Performance Award, Houston Independent School District. (2012).
4. Merit-Based Performance Award, Houston Independent School District. (2011).
5. Teacher of the Month, Port Houston Elementary. (August 2011).
6. Teacher of the Month, Port Houston Elementary. (February 2011).

## **National**

1. Pediatric Graduate Scholarship, M.D. Anderson Children's Art Project. (January 2017).
2. Pediatric Graduate Scholarship, M.D. Anderson Children's Art Project. (2016).
3. Pediatric Graduate Scholarship, M.D. Anderson Children's Art Project. (August 2016).
4. Pediatric Graduate Scholarship, M.D. Anderson Children's Art Project. (2015).

## **Regional**

1. Research-In-Progress Paper Presentation Award, Mid-South Educational Research Association (MSERA). (November 2016).

## **University**

1. Outstanding Service-Learning Faculty Award, USM Center for Community Engagement. (April 2023).
2. Richard A. Smith Award for Excellence in Scholarship, Millsaps College. (May 2019).
3. Omicron Delta Kappa Honor Society, LSU College of Human Sciences & Education. (2017).
4. Omicron Delta Kappa Honor Society, LSU College of Human Sciences & Education. (2016).
5. Outstanding Contribution by a WGS Supporter Award, LSU Department of Women & Gender Studies. (May 2016).
6. Omicron Delta Kappa Honor Society, LSU College of Human Sciences & Education. (2015).
7. Robert Noyce Teacher Scholarship, National Science Foundation. (2010).
8. Robert Noyce Teacher Scholarship, National Science Foundation. (2009).

## **USM Teaching Experience**

### **CIE**

- CIE 302, section H001, Classroom Management. 39 enrolled.
- CIE 492H, section H002, Special Problems. 1 enrolled.
- CIE 302, section H003, Classroom Management. 00032 enrolled.
- CIE 492H, section H002, Special Problems. 00002 enrolled.
- CIE 492H, section H001, Special Problems. 00001 enrolled.
- CIE 302, section G001, Classroom Management. 6 enrolled.
- CIE 302, section H001, Classroom Management. 17 enrolled.
- CIE 302, section H003, Classroom Management. 17 enrolled.
- CIE 302, section H002, Classroom Management. 16 enrolled.
- CIE 382, section H001, Elementary Education Practicum III. 24 enrolled.

### **CIS**

- CIS 302, section H001, Classroom Management for Secondary Environments. 27 enrolled.

### **HON**

- HON 301, section H001, Developing the Honors Thesis II. 00023 enrolled.
- HON 300, section H001, Developing the Honors Thesis I. 25 enrolled.
- HON 303, section H005, Honors Seminar. 00011 enrolled.

## **SME**

- SME 898, section H001, Dissertation. 2 enrolled.
- SME 700, section H001, Science Curriculum in the Public Schools. 5 enrolled.
- SME 792, section H001, Special Problems. 4 enrolled.
- SME 898, section H001, Dissertation. 3 enrolled.
- SME 791, section H001, Research in Science Education. 11 enrolled.
- SME 432, section H003, Science for Elementary Teachers. 23 enrolled.
- SME 532, section H001, Science for Elementary Teachers. 1 enrolled.
- SME 898, section H006, Dissertation. 00002 enrolled.
- SME 432, section H002, Science for Elementary Teachers. 16 enrolled.
- SME 492, section G001, Special Problems. 00000 enrolled.
- SME 492, section H001, Special Problems. 00004 enrolled.
- SME 792, section H001, Special Problems. 00007 enrolled.
- SME 432, section H004, Science for Elementary Teachers. 18 enrolled.
- SME 789, section H001, Seminar. 10 enrolled.
- SME 792, section H004, Special Problems. 1 enrolled.

## **Directed Student Learning**

### **Directed Individual Study/Special Problems**

- Directed Individual Study/Special Problems, "SME 792 Coursework." (August 2021 - May 2022).  
Advised: Johnny Gary

### **Dissertation Committee Chair**

- Dissertation Committee Chair, "Role of Community-Engaged Science Experiences on Undergraduate Biology Students' Science Communication, Sense of Belonging, & Academic Resilience." (May 2023 - Present).  
Advised: Caroline Sorey
- Dissertation Committee Chair, "Increasing Quality Elementary STEM Instruction through Higher-Education Outreach Programs ." (January 2022 - Present).  
Advised: Brandi O'Neal
- Dissertation Committee Chair, "Examining the Dissonance between Academic Achievement and Interest in Science among East Asian International Students from Bioecological Perspectives." (October 2021 - Present).  
Advised: AJ Lemon

### **Dissertation Committee Member**

- Dissertation Committee Member, "Outdoor Education Experiences Impact on Community College Student Interest in Environmental Education." (May 2023 - Present).  
Advised: Robert (Curt) Skipper
- Dissertation Committee Member, "An Examination of Global Warming Science Instruction in Mississippi Schools." (February 2023 - Present).  
Advised: Shawn Chesser

### **Doctoral Project**

- Doctoral Project, "NASA MSSG Fellowship Outreach Activities - STEM Teacher Internship Program." (August 2022 - Present).  
Advised: Chelsea Drum

### **Doctoral Project Chair**

- Doctoral Project Chair, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Edith Flores
- Doctoral Project Chair, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Patrick Kirby
- Doctoral Project Chair, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Sharenus Purnell
- Doctoral Project Chair, "Comprehensive Exams." (March 2022 - December 2022).  
Advised: AJ Lemon
- Doctoral Project Chair, "Qualifying Exams." (May 2022 - August 2022).  
Advised: Selina Davis
- Doctoral Project Chair, "Comprehensive Exams." (January 2022 - March 2022).  
Advised: Brandi O'Neal

### **Doctoral Project Member**

- Doctoral Project Member, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Eric Eller
- Doctoral Project Member, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Alyssa Staubach
- Doctoral Project Member, "Qualifying Exams." (October 2022 - January 2023).  
Advised: Tania Tellier-Brooks
- Doctoral Project Member, "Qualifying Exams." (October 2022 - December 2022).  
Advised: Thomas (Micheal) Dodson

### **Internship/Practicum Advisor/Supervisor**

- Internship/Practicum Advisor/Supervisor, "Hattiesburg Zoo Research Practice Partnership (RPP) Volunteer - Undergraduate STEM Major." (March 2023 - Present).  
Advised: Isabel Duplantis (Polymer Science Major)
- Internship/Practicum Advisor/Supervisor, "Hattiesburg Zoo Research Practice Partnership (RPP) Volunteer - Undergraduate STEM Major." (March 2023 - Present).  
Advised: Samuel Schwarzauer (Conservation Biology Major)
- Internship/Practicum Advisor/Supervisor, "Hattiesburg Zoo Research Practice Partnership (RPP) Volunteer - Undergraduate STEM Major." (March 2023 - June 2023).  
Advised: William Parker (Conservation Biology Major)
- Internship/Practicum Advisor/Supervisor, "Hattiesburg Zoo Research Practice Partnership (RPP) Volunteer - Undergraduate STEM Major." (March 2023 - June 2023).  
Advised: Nishrenika Pokhrel (Conservation Biology Major)

### **Mentored Student Creative Activity**

- Mentored Student Creative Activity, "Beyond Mere Plant Identification: The Dichotomies of Curriculum, Digitization, and Language." (August 2023).  
Advised: Thomas (Michael) Dodson

- Mentored Student Creative Activity, "Hispanic Heritage Month: An Opportunity for Informal STEM (and Humanities) Education and Ethnoscience." (May 2023 - July 2023).  
Advised: Thomas (Michael) Dodson
- Mentored Student Creative Activity, "Connecting Classroom Science and Community Relationships." (January 2023 - June 2023).  
Advised: Brittany Anderson
- Mentored Student Creative Activity, "Connecting Classroom Science and Community Relationships." (January 2023 - June 2023).  
Advised: Alexis Bosnake
- Mentored Student Creative Activity, "Connecting Classroom Science and Community Relationships." (January 2023 - June 2023).  
Advised: Hope Ellison
- Mentored Student Creative Activity, "Under Erasure: The Troubling Effects of Plant Blindness in Postsecondary Science Education." (December 2022 - March 2023).  
Advised: Thomas (Micheal) Dodson
- Mentored Student Creative Activity, "The Hidden Curriculum of Community Partnerships between STEM Teacher Preparation Programs and Informal Science Institutions." (November 2022 - March 2023).  
Advised: Abigail Launius
- Mentored Student Creative Activity, "A Deconstruction of Traditional Scientific Merit Through the Lens of the American Patent System." (November 2022 - December 2022).  
Advised: Alyssa Staubach
- Mentored Student Creative Activity, "Boundless Opportunities: Science Teacher Education Through Informal Science Institutions." (February 2022 - October 2022).  
Advised: Abigail Launius
- Mentored Student Creative Activity, "Balancing Technical and Non-technical Skills to Develop a Positive STEM Identity Among STEM Undergraduate Students." (January 2022 - March 2022).  
Advised: Candace King
- Mentored Student Creative Activity, "Interstitial Spaces in Science Education: Informal Science Institutions, Community Partnerships, and Culturally Responsive Pedagogy." (January 2022 - March 2022).  
Advised: Abigail Launius
- Mentored Student Creative Activity, "NASA MSSG Fellowship Application." (January 2022 - February 2022).  
Advised: Lina Ghanbari
- Mentored Student Creative Activity, "Successful Grant Proposal - Drapeau Center for Undergraduate Research (DCUR) - Eagle SPUR Proposal." (October 2021).  
Advised: Abigail Launius
- Mentored Student Creative Activity, "Successful Grant Proposal - Drapeau Center for Undergraduate Research (DCUR) Summer Research Grant." (February 2020 - August 2020).  
Advised: Elisabeth Jolly

### **Mentored Student Publication**

- Mentored Student Publication, "Interstitial Spaces of Science Teacher Education: Informal Science Institutions, Community Partnerships, and Culturally-Responsive Pedagogy." (December 2022 - Present).  
Advised: Abigail Launius
- Mentored Student Publication, "'It's all there.': Entanglements of teacher preparation and induction." (December 2019 - January 2021).  
Advised: Elisabeth Jolly

## **Other**

- Graduate Assistantship, "Soar into STEM Education: Teacher Internship Program & Community Partners." (May 2022 - Present).  
Advised: Caroline Sorey
- Job Application Material Preparation, "Resume & Cover Letter." (March 2023 - May 2024).  
Advised: Mary Farrell Hitchcock
- Professional Development, "Resume Materials." (April 2023 - May 2023).  
Advised: Reyt Middleton
- Graduate Assistantship, "Soar into STEM Education: Teacher Internship Program & Community Partners." (August 2022 - May 2023).  
Advised: Abigail Launius
- Graduate Assistantship, "Gender Equity Movement in STEM (GEMS)." (May 2022 - May 2023).  
Advised: Mary Farrell Hitchcock
- Professional Development, "Resume & Job Search Materials." (February 2023 - April 2023).  
Advised: Mary Farrell Hitchcock
- Professional Development, "CV Revamp & Development." (March 2023).  
Advised: Abigail Launius
- Fellowship Application, "NASA MSSG Fellowship Application." (January 2023 - February 2023).  
Advised: Abigail Launius
- Campus-wide Award, "2021-2022 Outstanding Service-Learning Student." (April 2022).  
Advised: Hope Ellison
- Graduate Assistantship, "Graduate Assistantship." (August 2021 - December 2021).  
Advised: Johnny Gary
- Graduate Assistantship, "Graduate Assistantship." (August 2019 - May 2021).  
Advised: Marlee Conn

## **Supervised Undergraduate Research**

- Supervised Undergraduate Research, "Drapeau Center for Undergraduate Research (DCUR) - Eagle SPUR Project." (June 2020 - May 2022).  
Advised: Abigail Launius

## **Undergraduate Honors Thesis**

- Undergraduate Honors Thesis, "Life in the shadows: The relationship between informal science education and anthropocentrism." (December 2022 - Present).  
Advised: Reyt Middleton
- Undergraduate Honors Thesis, "When Teacher Preparation and Induction Collide: Exploring 'Identities-in-Practice' of Undergraduate Teacher Residents." (November 2019 - May 2021).  
Advised: Elisabeth Jolly
- Undergraduate Honors Thesis, "Uncovering the secrets of curricula: An autoethnographic study of 'science education as we know it'." (November 2019 - April 2021).  
Advised: Bailey Walker

## **Mentoring**

### **Undergraduate**

- Abigail Launius (Undergraduate). July 2021 - May 2022.
- Elisabeth Jolly (Undergraduate). September 2019 - June 2021.
- Bailey Walker (Undergraduate). November 2019 - April 2021.

- Megan Hansen (Undergraduate). January 2021.
- Sabrina Arguello (Undergraduate). October 2020 - January 2021.
- Kasi Matthews (Undergraduate). June 2018 - May 2019.
- Courtney Cleveland (Undergraduate). May 2018 - May 2019.

## **USM Teaching Innovation and Curriculum Development**

- New Degree Program. STEM Outreach Proficiency Badge. November 2022 - 2023.  
**--> Description of Activity:**  
 Informed by feedback from faculty in the Department of Marine Science, I lead the development of this new graduate badge by creating a course assessment plan, plan of study requirements, and materials in Curriculog for Curriculum Committee approval in Fall 2023.  
  
**--> Audience:**  
 Graduate students from STEM departments, graduate students from the Center for STEM Education
- Revise Existing Course. SME 700: Science Curriculum. December 2022 - February 2023.  
**--> Description of Activity:**  
 Updated course design to better support doctoral program performance and skill development for performance on qualifying and comprehensive exams. These updates for the Spring 2023 were based on a large cohort of students performance conducted in December 2022 and find ways to better support long term success within and beyond the SME graduate program.  
  
**--> Audience:**  
 Graduate students from STEM departments, graduate students from the Center for STEM Education  
  
**--> High Impact Practices:**
  - (a) Use of low-stakes assignment with feedback during first 3 weeks
  - (b) Written feedback to all students on multiple drafts of a single paper/project
  - (c) Student reflection assignments on course material
  - (d) Regular use of an active learning pedagogy
  - (e) Direct mentorship of students through on-going communication and individual meetings
- Revise Existing Degree Program. M.S. in STEM Education. November 2022 - February 2023.  
**--> Description of Activity:**  
 In collaboration with Center for STEMEd graduate faculty, I lead the development of shifting the existing SME M.S. program design (which mostly supported STEM content coursework engagement for full-time students) to add options for 100% online and hybrid formats that broadens the potential enrollment pool to include part-time students and increase access to more STEM education-specific coursework. These updates leveraged the new course rotation schedule established during 2021-2022 to help boost graduate program enrollment for all degree programs and streamline degree advising.
- New Degree Program. STEM Education Proficiency Badge. November 2022 - January 2023.  
**--> Description of Activity:**  
 Develop course assessment plan, plan of study requirements, and submitted materials to Curriculog for Curriculum Committee approval.  
  
**--> Audience:**  
 Graduate students from STEM departments, graduate students from the Center for STEM Education, in-service K12 teachers, informal educators
- New Course. SME 600: Dimensions of Science Communication. August 2022 - December 2022.  
**--> Description of Activity:**  
 This course had never been taught before at USM I developed the entire syllabus, created recruitment materials (e.g., videos, flyers, email announcements), and establish a new Learning Management System (LMS) Canvas shell for the course.  
  
**--> Audience:**

Graduate students from all academic departments, graduate students from the Center for STEM Education

--> **Course Description:**

Effective science communication is critical in today's complex society. Science communication, formal, informal, and social media formats are essential for increasing science literacy for our nation's citizens. Through this course, content-area specialists and educators will combine their deep subject matter knowledge with effective communication practices to democratize access to reliable scientific research.

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Required collaborative learning experiences for credit
- (c) Written feedback to all students on multiple drafts of a single paper/project
- (d) Student reflection assignments on course material
- (e) Required public demonstration of acquired course knowledge
- (f) Regular use of an active learning pedagogy
- (g) Direct mentorship of students through on-going communication and individual meetings

- Revise Existing Course. SME 791: Research in Science Education. July 2022 - December 2022.

--> **Description of Activity:**

Updated course design to better support doctoral program performance and skill development for performance on qualifying and comprehensive exams. These updates for the Fall 2022 were based on a large cohort of students preparing for qualifying exams conducted in December 2022 and cultivate long term success within and beyond the SME graduate program.

--> **Audience:**

Graduate students from STEM departments, graduate students from the Center for STEM Education

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project
- (c) Student reflection assignments on course material
- (d) Regular use of an active learning pedagogy
- (e) Direct mentorship of students through on-going communication and individual meetings

- Revise Existing Course. SME 532: Science Methods for Elementary Teachers. January 2022 - December 2022.

--> **Description of Activity:**

This is a course that has been on the books for several years but has not been put into regular rotation. As a program, I helped bring this course out of 'retirement' to revise it as a course that provides close mentorship and training for SME graduate students (who may not have a GA position) to get experience teaching in higher education with teacher candidates.

--> **Audience:**

Graduate Students in the Center for STEM Education

--> **High Impact Practices:**

- (a) Required public demonstration of acquired course knowledge
- (b) Direct mentorship of students through on-going communication and individual meetings

- Revise Existing Course. SME 432 - Science for Elementary Teachers. July 2021 - December 2022.

--> **Description of Activity:**

In July 2021, I began the development and initiated a new service-learning partnership with the Hattiesburg Zoo. During this first a semester, I created a new syllabus, service-learning shift management system to document service involvement, and established a new Learning Management System (LMS) Canvas. This initial course revision, has continued to be fine-tuned over the several semesters as my Hattiesburg Zoo partners and I learn about 'what works' and areas for improving the experience for all stakeholders. The course is approved by USM's Center for Community Engagement as a service-learning course.

--> **Audience:**

USM School of Education's Elementary Education teacher licensure candidates

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project
- (c) Student reflection assignments on course material
- (d) Required public demonstration of acquired course knowledge
- (e) Regular use of an active learning pedagogy
- (f) Direct mentorship of students through on-going communication and individual meetings
- (g) Academic Service Learning

- New Course. SME 492: Experiences in STEM. October 2021 - May 2022.

--> **Description of Activity:**

This course had never been taught before at USM I developed the entire syllabus and all course materials from scratch, created recruitment materials (e.g., videos, flyers, email announcements), and establish a new Learning Management System (LMS) Canvas shell for the course.

The course is approved by USM's Center for Community Engagement as a service-learning course.

--> **Audience:**

Undergraduate students from all departments interested in STEM education and outreach, pre-service teachers seeking science endorsement

--> **Course Description:**

SME 492 is a unique field-intensive course that partners directly with informal science education institutions to engage undergraduate students in hands-on educational experiences to support local STEM education needs.

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Required collaborative learning experiences for credit
- (c) Student reflection assignments on course material
- (d) Required public demonstration of acquired course knowledge
- (e) Direct mentorship of students through on-going communication and individual meetings
- (f) Academic Service Learning

- Curricular Development. PhD in STEM Education. August 2021 - May 2022.

--> **Description of Activity:**

In collaboration with CSME faculty, I lead the development of and establishing a first ever course rotation schedule and created tools to help streamline recurring programmatic scheduling, stabilize consistent course enrollment, & advising of student degree progress. These systems continue to be in use by my colleagues and administrative staff one year after development.

- New Course. SME 602: Teaching & Learning STEM in Higher Education. August 2021 - May 2022.

--> **Description of Activity:**

This course had never been taught before at USM I developed the entire syllabus, created recruitment materials (e.g., videos, flyers, email announcements), and establish a new Learning Management System (LMS) Canvas shell for the course.

--> **Audience:**

Graduate students from STEM departments, graduate students from the Center for STEM Education

--> **Course Description:**

Students will explore effective teaching and learning methods in the context of STEM content applications for learners in college and university settings. This course will require analysis of the complex dynamics impacting teaching and learning in collegiate *STEM* settings to understand best practices, the opportunity to prepare signature pedagogical artifacts (e.g., course syllabi, teaching statement, practice leading class instruction/discussion).

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project

- (c) Student reflection assignments on course material
- (d) Regular use of an active learning pedagogy
- (e) Direct mentorship of students through on-going communication and individual meetings

- New Course. SME 653: Equity and Culture of STEM Learning. August 2021 - 2021.

**--> Description of Activity:**

This course had never been taught before at USM helped to create all of the initial materials for Curriculum and College's Curriculum Committee to review during the approval process and created recruitment materials (e.g., videos, flyers, email announcements).

**--> Audience:**

Graduate students from STEM departments, graduate students from the Center for STEM Education

**--> Course Description**

This course will explore interactions and implications of issues of diversity, equity, policy, and social justice as related to STEM education. This course will explore interactions and implications of issues of diversity, equity, policy, and social justice as related to STEM education. Through these topics, diverse perspectives related to the purposes/scope of STEM education is explored.

**--> High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project
- (c) Student reflection assignments on course material
- (d) Regular use of an active learning pedagogy
- (e) Direct mentorship of students through on-going communication and individual meetings

- New Course. SME 652: Critical Histories of STEM Education. August 2021.

**--> Description of Activity:**

This course had never been taught before at USM. I helped to create all of the initial materials for Curriculum and College's Curriculum Committee to review during the approval process. announcements).

**--> Audience:**

Graduate students from STEM departments, graduate students from the Center for STEM Education

- Revise Existing Degree Program. MEd in Elementary Education. October 2019 - February 2021.

**--> Description of Activity:**

As a graduate faculty member in the Elementary Education program, I was been extensively involved in re-designing the MEd program during October 2019-February 2021 (almost the entire time my faculty appointment was in the School of Education). Throughout this time I collaborated with ELE graduate faculty to accomplish the following goals: (a) reimagine the identity, vision, and mission of MEd degree to be focused on supporting early career teachers; (b) develop new program outcomes, sequence, objectives, and assessment plan; and (c) design three new required graduate-level courses submitted to Curriculum Council for review. As of the 2022-2023 course bulletin, the only updates actually adopted from these collaborative efforts include one new course (CIE 628- Culturally Responsive Curriculum in Education).

- New Course. CIE 603: Critical Issues in the Elementary School. August 2020 - December 2020.

**--> Description of Activity:**

As part of the Elementary Education graduate program re-design, I collaborated with other graduate faculty to design an entirely new course inclusive of reviewing multiple textbook selections and developing key assignments to align with new program outcomes.

**--> Audience:**

USM graduate students enrolled in the MEd Curriculum & Instruction program in the School of Education.

**--> Course Description:**

In this course, the ways in which social, political, economic, cultural, and historical dimensions of schooling impact inequities in U.S. education will be examined. Students will explore how gender, race, socioeconomic status, and LGBTQ+ factors influence interactions between teachers and students. Through an in-depth engagement with current research, students will develop a multidimensional understanding of the complex ecological context of the educational experience.

- New Course. CIE 722: Ambitious Science Teaching for the Elementary School. August 2020 - December 2020.

--> **Description of Activity:**  
As part of the Elementary Education graduate program re-design, I collaborated with other graduate faculty to design an entirely new course inclusive of reviewing multiple textbook selections and developing key assignments to align with new program outcomes.

--> **Audience:**  
USM graduate students enrolled in the MEd Curriculum & Instruction program in the School of Education.

--> **Course Description:**  
This course is designed to develop teachers who participate in reflective practice and inquiring pedagogy to enhance a deeper skillset for effectively teaching elementary school science. Informed by the national and state curricular requirements students will explore how to design ambitious and culturally-relevant educational experiences in science.
- New Course. CIE 789: New Educator Site for Transformation (NEST) Seminar. August 2020 - December 2020.

--> **Description of Activity:**  
As part of the Elementary Education graduate program re-design, I collaborated with other graduate faculty to design an entirely new course inclusive of reviewing multiple textbook selections and developing key assignments to align with new program outcomes.

--> **Audience:**  
USM graduate students enrolled in the MEd Curriculum & Instruction program in the School of Education.

--> **Course Description:**  
In this course, a complex understanding of children's cognitive development and integrated view of educational experiences will inform students' professional growth. Through the creation of a launch plan and research project, students will situate their ongoing development as an educator. Students will utilize existing research to select and justify pedagogical decisions designed to promote equitable access to high-quality (or rigorous) educational experiences.
- New Course. HON 303: Feminist Science Studies. January 2020 - July 2020.

--> **Description of Activity:**  
Created and establish a brand new course for USM Honors College entitled "Feminist Science Studies" implemented in the Fall 2020 semester. Students enrolled in this course prepared a class demonstration for all Honors seminar students and faculty. Determined by a panel of USM faculty not currently teaching Honors seminar, my students earned the award for "Most Thoughtful/Reflective".

--> **Audience:**  
USM undergraduate honors students from a wide variety of academic disciplines.

--> **Course Description:**  
Feminist Science Studies (FSS) is a growing international field of study. This course explores the entanglement feminist studies, access and marginalization in STEM disciplines, and questions about scientific knowledge-making.

--> **High Impact Practices:**

  - Use of low-stakes assignment with feedback during first 3 weeks
  - Required collaborative learning experiences for credit
  - Written feedback to all students on multiple drafts of a single paper/project
  - Student reflection assignments on course material
  - Required public demonstration of acquired course knowledge
  - Regular use of an active learning pedagogy
  - Direct mentorship of students through on-going communication and individual meetings
- Revise Existing Course. CIE 302: Classroom Management. June 2019 - May 2020.

--> **Description of Activity:**  
The two primary revisions made to this course included updating the textbooks, addition of one new service-learning assignment (RISE project), and update to a major assignment (Classroom Management Plan, CMP) to

better align with current research-based practices for supporting culturally-responsive classroom management in schools. USM teacher licensure candidates continue to report the positive impact these two texts have created for USM students years even after I stopped teaching the course in 2021. Once the RISE project was added to the course requirements, CIE 302 (a 100% online class at the time) was approved by the university's Center for Community Engagement as a service-learning course.

--> **Audience:**

USM School of Education's Elementary Education teacher licensure candidates

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project
- (c) Student reflection assignments on course material
- (d) Required public demonstration of acquired course knowledge
- (e) Regular use of an active learning pedagogy
- (f) Direct mentorship of students through on-going communication and individual meetings
- (g) Academic Service Learning

- Revise Existing Course. CIE 382: Senior Block Practicum. July 2019 - December 2019.

--> **Description of Activity:**

In collaboration with existing ELE Practicum Coordinator, we developed entirely new assignments for CIE 302 practicum coursework that embedded new multimodal reflection formats. Prior to coming to USM, reflection had only been solicited in written format, and thus we set out to embed an entirely new video format to supplement conventional reflections. These two format options were just one of the many ways we built-in opportunities for student autonomy. We gave students the choice of when to complete their reflections with only two big 'checkpoints' (finals and mid-term) since the mere identification of an event worthy of reflection is an important skill teachers must demonstrate.

--> **Audience:**

USM School of Education's Elementary Education teacher licensure candidates

--> **High Impact Practices:**

- (a) Use of low-stakes assignment with feedback during first 3 weeks
- (b) Written feedback to all students on multiple drafts of a single paper/project
- (c) Student reflection assignments on course material
- (d) Required public demonstration of acquired course knowledge
- (e) Direct mentorship of students through on-going communication and individual meetings

## **Media Appearances and Interviews**

- "USM Distinguished Faculty, Staff, Alumni Honored at Annual Arts & Sciences Awards Ceremony," USM News. (May 2023).
- "USM Center for Community Engagement Honors Hattiesburg Zoo," USM News. (April 2023).
- "USM Center for STEM Education Partners with Hattiesburg Zoo for Inaugural Teachers-on-the-Move Collaborative," USM News. (May 2022).
- "Hattiesburg Zoo Partners with USM Students on Exhibit Presentations," USM News. (November 23, 2021).
- "USM Center for Science and Mathematics Education to Present STEM Experts for Speaker Series," USM News. (September 2021).
- "USM Education Faculty Member Wins 'Best Paper of the Year' in International Journal," USM News. (April 2020).
- "Researcher Spotlight," USM College of Education & Human Sciences. (February 2020).
- "State Takeovers and Impact on Public Education," WAPT Jackson. (September 2017).

## **Faculty Development Activities Attended**

- Continuing Education Program, "Building Leadership Capacity to Achieve DEI Goals," AAAS - SEA Change. (March 2023 - May 2023).
- USM Faculty Development Seminar/Program, "PreTenure, Promotion and Tenure: Putting It Together," USM Center for Faculty Development. (May 25, 2023).
- USM Faculty Development Seminar/Program, "Developing a Community Engaged Institution," USM Center for Faculty Development. (February 23, 2023).
- USM Faculty Development Seminar/Program, "Innovative Teaching Workshop Series: Teaching with Learning Assistants," USM Center for Faculty Development. (January 11, 2023).
- USM Faculty Development Seminar/Program, "Creating Opportunities that Mutually Benefit Students and the Community," USM Center for Faculty Development. (October 26, 2021).
- USM Faculty Development Seminar/Program, "Coffee Chat: Community Collaboration and the Classroom," USM Center for Faculty Development. (September 29, 2021).
- USM Faculty Development Seminar/Program, "Coffee Chat: Scientific Literacy," USM Center for Faculty Development. (February 10, 2021).
- USM Faculty Development Seminar/Program, "Academic Impressions Webinar: Teaching Your Service-Learning Course Online," USM Center for Faculty Development. (December 1, 2020).
- USM Faculty Development Seminar/Program, "Promotion and Tenure: Dossier Prep, Digital Measures, PDF Workflow," USM Center for Faculty Development. (November 6, 2020).
- USM Faculty Development Seminar/Program, "Promotion and Tenure: Preparing for Third Year Review," USM Center for Faculty Development. (November 6, 2020).
- USM Faculty Development Seminar/Program, "Coffee Chat: Faculty Mentoring," Center for Faculty Development. (September 9, 2020).
- USM Faculty Development Seminar/Program, "Mentoring Undergraduate Research During COVID-19," Center for Faculty Development. (September 2, 2020).
- USM Faculty Development Seminar/Program, "Creating Collaborative Projects in Canvas," Center for Faculty Development. (August 11, 2020).
- USM Faculty Development Seminar/Program, "Promotion and Tenure: Moving to Associate," Center for Faculty Development. (July 30, 2020).
- USM Faculty Development Seminar/Program, "Coffee Chat: Sharing Ideas for Fall Classes," Center for Faculty Development. (July 15, 2020).
- USM Faculty Development Seminar/Program, "Scaffolding Online Writing and Speaking Assignments," Center for Faculty Development. (July 14, 2020).
- USM Faculty Development Seminar/Program, "First Year Foundations: Continued Success at Southern Miss," Center for Faculty Development. (April 17, 2020).
- USM Faculty Development Seminar/Program, "First Year Foundations: Difficult Conversations," USM. (October 16, 2019).
- USM Faculty Development Seminar/Program, "New Faculty Orientation," USM. (August 19, 2019 - August 23, 2019).

## **University Service**

### **Department/School**

- Program Coordinator, STEM Education Proficiency Badge. (December 2022 - Present).

- Program Coordinator, STEM Education Graduate Certificate. (November 2022 - Present).
- Committee Member, STEM Education Graduate Program Committee. (August 2021 - Present).
- Committee Member, Elementary Teacher Licensure Caucus. (August 2019 - Present).
- Seminar Series Coordinator, Center for STEM Education. (July 2021 - December 2021).
- Peer Observations, Elementary Education Program. (March 2021 - May 2021).
- Co-Founder, Collaborative Honors Educational Experience in Research (CHEER). (November 2019 - May 2021).
- Co-Chair, Scholarship Circle Committee. (October 2020 - May 2020).
- Committee Member, Ad-Hoc Diversity in Educator Preparation Program (EPP) Committee. (January 2020 - May 2020).
- Graduate Faculty Member, Elementary Education Graduate Program. (August 2019 - May 2020).
- Committee Member, Assistant Professor of Elementary Education (Tenure-Track) Search Committee. (January 2020 - April 2020).
- University Liaison, Petal Residency Pilot Program. (August 2019 - December 2019).
- Mock Interviewer, Research, Evaluation, Statistics, and Administration Program (RESA). (November 2019).
- Social Media Manager, Department of Education, Millsaps College. (August 2017 - June 2019).
- Co-Chair/Vice-President, Curriculum Theory Graduate Collaborative, LSU. (May 2016 - May 2017).
- Officer Board Member, Curriculum Theory Graduate Collaborative, LSU. (May 2015 - May 2016).
- Professional Development and Mentoring Chair, Curriculum Theory Graduate Collaborative, LSU. (May 2014 - May 2015).

### **University**

- Faculty Advisor, STEM Education Student Collective. (August 2023 - Present).
- STEMed Representative, Graduate Council. (August 2023 - Present).
- Board Member, Civic Action Advisory Board. (February 2023 - Present).
- Member, Senate Welfare & Environment Committee. (December 2022 - Present).
- Committee Member, Faculty Senate Handbook Advisory Committee. (November 2022 - Present).
- Committee Member, Faculty Senate. (September 2022 - Present).
- Campus Visit, Search Committee for Director of Center for Women & Leadership. (April 2023).
- Committee Member, Honors College Admissions Committee. (November 2021 - February 2022).
- Reviewer, Honors College Admissions Committee. (November 2020 - February 2021).
- Attendee, USM Professional Educator Unit (PEC). (July 2019 - May 2020).
- Search Committee, Center for Math & Science Education. (January 2020 - March 2020).

### **Professional Service**

#### **International**

- Director of Electronic Services, Association for Science Teacher Education (ASTE). (January 2024 - Present).
- Reviewer/Referee, Cultural Studies in Science Education (CSSE). (July 2016 - Present).
- Editorial Review Board Member, Journal of Science Teacher Education (JSTE). (2021 - 2024).

- Conference Program Strand Coordinator, European Science Education Research Association (ESERA). (December 2022 - August 2023).
- Reviewer/Referee, National Academies of Science - Gulf Research Program. (April 2023 - May 2023).
- Committee Member, American Educational Research Association (AERA). (December 2022 - April 2023).
- Committee Chair, Conference Logistics - Science Educators for Equity, Diversity, & Social Justice (SEEDS). (2019 - October 2022).
- Committee Chair, Website & Social Media - Science Educators for Equity, Diversity, & Social Justice (SEEDS). (2019 - October 2022).
- Committee Member, Senior Leadership Council - Science Educators for Equity, Diversity, & Social Justice (SEEDS). (2019 - October 2022).
- Mentor for Sandra K. Abell Institute for Doctoral Students, National Association for Research on Science Teaching (NARST). (December 2021 - June 2022).
- Editorial Review Board Member, Journal of Science Teacher Education (JSTE). (April 2018 - December 2021).
- Editorial Review Board Member, Innovations in Science Teacher Education Journal (ISTE). (April 2018 - April 2021).
- Committee Member, Membership & Communications - Science Educators for Equity, Diversity, & Social Justice (SEEDS). (2017 - 2020).
- Reviewer/Referee, Reconceptualising Educational Research Methodology Journal. (July 2019).
- Committee Chair, AERA Research on Induction SIG. (May 2017 - May 2019).
- Reviewer/Referee, AERA Research on Induction SIG. (2018).
- Reviewer/Referee, Peter Lang Publishing. (2018 - June 2018).
- Reviewer/Referee, Science Teaching & Learning SIG; Division B - Curriculum Studies Section 3: Methodologies, Cosmologies, and Philosophies. (2018 - August 2018).
- Committee Chair, American Education Research Association (AERA) - Division K. (2015 - 2017).
- Committee Member, Association of Science Teacher Education (ASTE). (January 2017 - June 2017).

### **National**

- Reviewer/Referee, Catalyst: Special issue on social justice in STEM education. (2016).

### **Public Service**

- Volunteer Scuba Diver, Mississippi Museum of Natural Science. (January 2019 - May 2019).
- Interview on Dissertation Research & Teaching Practice, LSU Experimental Podcast. (November 2018).
- Volunteer Geologist, Trinity University K-12 Gifted Education Program Field Trip. (May 2010).
- Campus Leadership Team- Trinity Intern Representative, Hawthorne Academy, San Antonio, TX. (August 2009 - May 2010).

### **Professional Memberships**

- Association of Science Teacher Education Member (ASTE). (2016 - Present).
- National Association of Research on Science Teaching (NARST). (2016 - Present).
- American Education Research Association (AERA). (2014 - Present).
- Science Educators for Equity, Diversity, & Social Justice (SEEDS). (2018 - 2022).

- Louisiana Education Research Association. (2015 - 2017).
- International Association of the Advancement of Curriculum Studies (IAACS). (2014 - 2017).
- LSU Curriculum Theory Project Ph.D. Focus Group. (2014 - 2017).
- LSU Curriculum Theory Graduate Collaborative. (2013 - 2017).