

CURRICULUM VITAE

Michael Dias
Professor of Biology Education
Secondary and Middle Grades Education
Kennesaw State University
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EDUCATION

Georgia State University	Science Education	Ph.D. 2000
University of West Georgia	Secondary Education	M.Ed. 1992
Western Kentucky University	Biology	B.S. 1987

ACADEMIC POSITIONS

2017-Present	Professor of Biology Education, Department of Secondary and Middle Grades Education, Kennesaw State University.
2015-2017	Associate Professor of Biology Education, Department of Ecology, Evolution and Organismal Biology, Kennesaw State University.
2009-2015	Associate Professor of Biology Education, Department of Biology and Physics, Kennesaw State University.
2005- 2009	Assistant Professor of Biology Education, Department of Biology and Physics, Kennesaw State University.
2004-2005	Assistant Professor of Science Education, Department of Mathematics and Science Education, University of Georgia.
2001-2004	Assistant Professor of Biology Education, Department of Biological and Physical Sciences, Kennesaw State University.
1993-2001	Science teacher, Cobb County School District, Georgia.
1992-1993	Science teacher, Nashville Metropolitan School District, Tennessee.
1987-1992	Science teacher, Cobb County School District, Georgia.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Association of Science Teacher Education
- Georgia Science Teachers Association
- National Association of Biology Teachers
- National Science Teachers Association
- Southeastern Association of Science Teacher Education

HONORS AND AWARDS

- John Shrum Award for Excellence in the Education of Science Teachers, 2015, Awarded by the Southeastern Association for Science Teacher Education, October 17, 2015 at Columbus State University, Columbus, GA.
- Outstanding Faculty Position Paper, 2005, Southeastern Association of for the Education of Teachers in Science, Athens, GA.
- Outstanding Dissertation Award, 2000, College of Education, Georgia State University, Atlanta, GA.

TEACHING, SUPERVISION, & MENTORING

COURSES TAUGHT AT KENNESAW STATE UNIVERSITY

1. BED 4416/4417, Teaching Biology with Practicum
2. BED/CHED/PHED 4422/6422 Project-based Instruction
3. BED 4475 Teaching Biology (Student Teaching Supervision)
4. BED 4490/4417 Teaching Biology, Urban Education
5. BED 4660 Yearlong Clinical Experience
6. BED 6423 PCK for Biology III
7. BIOL 2221 Human Anatomy & Physiology I
8. BIOL 2221L Human Anatomy & Physiology I, Laboratory
9. BIOL 2222 Human Anatomy & Physiology II
10. BIOL 2222L Human Anatomy & Physiology II, Laboratory
11. BIOL 3110L Directed Methods
12. BIOL 4490 Science Teaching Reconnaissance
13. EDUC 6255 Teaching Learners
14. EDSM 4414 Secondary Math and Science Practicum I
15. EDSM 4416 Secondary Math and Science Practicum II
16. EDSM 8400 Internship in Teacher Development
17. ISCI 2001 Concepts in Life and Earth Science
18. SCED 2421 Classroom Interactions
19. SCED 3010 Perspectives in Science Teaching
20. SCED 4000 Science Education Service Learning
21. SCED 4414/6414 Methods of Teaching Secondary Science I
22. SCED 4416 Methods of Teaching Secondary Science II
23. SCED 6412 Introduction to Teaching 3-Dimensional Science
24. SCED 4650 Yearlong Clinical Experience I
25. SCED 4475 Student Teaching, Science
26. SCED 4650/6650 Yearlong Clinical I Experience Supervision
27. SCED 4660/6660 Yearlong Clinical II Experience Supervision
28. SCED 7750 Contemporary Issues in Science Education
29. SCI 2201 Concepts in Science
30. SCI 7726 Life Science

COURSES TAUGHT AT THE UNIVERSITY OF GEORGIA

1. ESCI 5460 Science Education School-based Internship
2. ESCI 6460 Methods of Science Teaching
3. ESCI 6450 Secondary Science Curriculum
4. ESCI 6480 Technology Capabilities for Science Teachers

MENTORING NEW SCIENCE TEACHERS AT KENNESAW STATE UNIVERSITY

158 Pre-service Secondary Science Teachers since 2001, 88.6% retention in teaching (verified 1/2023):

Rebecca Abdou, April Adams, Savannah Ashbey, Mistie Banks, Suzie Barkley, Robin Barnhorn, Jamie Moore Bell, Melissa Bentley, Tyler Benton, Barika Bettis, Bill Bishop, Julie Botts, Amber Britman, Aleyna Brondo, Ashley Brown, Dalida Brown, Jennifer Burgener, Jennifer Callison-Bliss, Amber Carr, Hanna Carroll, Karleman Casebolt, Robyn Cerra, Logan Chatham, Lindsey Cofer, Caroline Crain, Brian Etchison-Cook, Jennifer Corbett, Lindee Crawford, Haley Davis, Amanda Dennis, Jacob DeVoss, Brianna Douglas, Tamara Dowis, Beth Drobinski, Kelly England, Sheila Ensor, Danielle Ereddia, Lauren Ermlich, Kristie Fambro, Lauren Farabaugh, Tanya Fields, Adrianna Flieger, Angel Foster, Samuel Foster, Alison Francis, Kim Gibson, Heather Glazebrook, Savannah Godowns, Jason Goodman, Nicole Gray, Ashley Green, Luke Green, Elizabeth Yeager Green, Jacqueline Gustin, Jonathan Gustin, Ben Harmon, Kate Harnage, Phoebe Harrington, Brittany Haynes, LeShea Hermansen, Amanda Hoarell, Serdia Holcombe, Danielle Holland, Steven Horzewski, Ben Hostetler, Jay Hunter, David Huynh, Chad Ikerd, Kristin Jackson, Annie Kamau, Simone Kang, Shawn Kashef, Brianna Kelly, Chloe Gambrell, Alicia Rowan, Brandi Kinkhead, Rachel Hildreth Kucera, Laura Kudlak, Kyle Laniewski, Larry Layfield, Jaime Lea, Danielle Lebrun, Christine Jung Eun Lee, Susan Lidh, Erin Loggins, Camron Macon, Dan Madison, Dawn Marotta, Beth Martin, Nicole Mastriforte, Grant McDurmon, Wesley Meadows, Angela Mentzel, Kasey Miller, Barbara Misel, Lorrie Moore, Alicia Morrison, Caroline Motes, Alison Muchiri, Madalyn Murphy, Melissa Neese, Sam Njoroge, Cathrine Nolan, Herdrine Ntsama, Kayla Oliver, Bridget Owensby, Becky Parker, Tamika Parkinson, Lisa Peacock, John Petrie, Cole Phillips, Brett Pinckard, Andrea Pinzon, Amanda Pittman Burks, Alexandra Price, Karen Puckett, Devin Ray, Shanna Rentz, Nannette Reese, Janet Robison, Vanessa Rodriguez, Shatara Ross, Zakayo Ruoro, Michael Sanderson, Henley Sawicki, Joel Scagnelli, Kerry Shaw-Baux, Alexandra Silva, Chandler Simons, Taylor Simons, William Sligh, Misty Stafford, Audra Thomas, Katherine Thornton, Christina Thrower, Jennifer Tolbert, Katrina Toledo, Marianne Tomlin, Jacqui Toner, Zannetta Walker, Dustin Westbrook, Arianna Valentin, Jessica VanGessel, Flavia Villarinho, Marshai Waiters, Matthew Webb, Felise Wen, Jessica Royal-West, Robin White, Andrew Wilcox, Riley Wildeman, Claire Wilkins, Cole Williams, Jenna Wilt, Starrissa Winters, Micah Wolven, Tara Yaun, Tonya Young

Directed Study:

1. Christy Garvin, *Inquiry-based Genetics for Middle School Life Science*, March-December, 2002.
2. Logan Chatham, *Pre/Post Student Learning Gains from Water Quality Analysis of La Paz and Rio Tarcoles Watersheds in Costa Rica*, March-May, 2015.
3. Ben Hostetler, *Use of pre-assessment data for dialog-rich conceptual change teaching about controversial science issues*, March-May, 2016.
4. Jenna Wilt, *Project-based Learning Lessons Applying Human Physiology to High School Biology*, March-October, 2016.

ACADEMIC ADVISING AT KSU

- Biology, Chemistry, and Science EdD students, 2022-present
- Biology, Chemistry, and Science EdS students, 2022-present
- MAT Biology, Chemistry, Physics students, 2022-present
- 230 B.S. Biology, Education Track students, 2015-2001

MENTORING STUDENT RESEARCH

Doctoral Dissertation Committee Member:

Barner, Chad. (2010). *A reason to believe: A scientist's search for meaning and purpose within the cultural communities of science and religion*, Georgia State University.

Beyer, Tracey. (in progress). Kennesaw State University.

Bice, Robert. (2020). *Rural High School Chemistry Teachers' Views and Implementation of Inquiry-Based Laboratory Instruction as Set Forth in The Next Generation Science Standards*, Kennesaw State University.

Davis, Bryan. (2008). *Investigating the experience: A case study of a science professional development program based on Kolb's experiential learning model*, Georgia State University.

Davis, Erin. (2014). *Teachers' technology integration expertise*, Georgia State University.

Pecore, John. (2009). *A case study of secondary science teachers' facilitating historical problem-based learning lessons: Viewed through a constructivist lens*, Georgia State University.

Philpot, Cindy. (2007). *Science Olympiad students' understanding of nature of science*, Georgia State University.

Reeves, Marion. (2011). *Contextualizing professional development for high school biology teacher proficiency in standards-based instruction*. The University of Georgia.

Roman, Suzanna. (2019). *Culturally relevant science: A multiple case-study on the beliefs, experiences and practices of pre-service teachers in racially and ethnically diverse classrooms*. Georgia State University

Schomer, Scott. (2005). *Mentoring a new teacher in reform-based ways: A focus on inquiry*, Georgia State University.

Strickland, Ryan. (in progress). Kennesaw State University.

Veillon, Jeremiah. (2019). *The Effect of Experiential Learning Theory on Students' Conceptual Understanding of Functions in Algebra-1*. Kennesaw State University

Walls, Ashley. (in progress). Kennesaw State University.

Wilson, Hillary (2021). *Student Engagement in the Flipped Honors Biology Classroom*, Kennesaw State University.

Master's Thesis Committee Member:

Jesse Draper, (2005). *Second career teachers: Conceptions of inquiry-based teaching in the secondary science classroom*, The University of Georgia.

SCHOLARSHIP AND CREATIVE ACTIVITY

PUBLICATIONS

27. Morrissey, S., Koballa, T., Allen, B., Godfrey, J., **Dias, M.**, Utley, S., & Clements, D. (2023, accepted). *Designing a program to develop computer science master teachers for an underserved rural area*. Journal of STEM Teacher Education.
26. Roman, T., Edwards, B., **Dias, M.** & Brantley-Dias, L. (2022). Building teacher communities through trauma-informed teaching practices: Teaching for social justice in STEM. In E. Baumgartner, R. Kaplan-Rakowski, R.E. Ferdig, R. Hartshorne, & C. Mouza (Eds.) *A retrospective of teaching, technology, and teacher education during the COVID-19 pandemic*. (pp. 261-268). Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/221522/>
25. Roman, T. A., Edwards, B. P., **Dias, M.**, Brantley-Dias, L. (2021). STEM teachers' designs for learning: Addressing the social and political climate during COVID-19. *The Journal of Applied Instructional Design*, 10(4). https://edtechbooks.org/jaid_10_4/stem_teachers_design

24. Roman, T. A., Brantley-Dias, L., **Dias, M.**, Edwards, B. (2021). Addressing student engagement during COVID-19: Secondary STEM teachers attend to the affective dimension of learner needs. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2021.1920519>
23. Brantley-Dias, L., Puvirajah, A., **Dias, M.** (2021). Supporting teacher candidates' multidimensional reflection: A model and a protocol. *Reflective Practice*, 22(2), 187-202. <https://doi.org/10.1080/14623943.2020.1865904>
22. **Dias, M.**, & Brantley-Dias, L. (2017). Setting the standard for project-based learning: A proven approach to rigorous classroom instruction. *Interdisciplinary Journal of Problem-based Learning*, 11(2). <https://doi.org/10.7771/1541-5015.1721>
21. Eick, C. J., & **Dias, M.** (2016). Enacting a reform-based science curriculum: Design changes to extend inquiry. *International Journal of Designs for Learning*, 7(1), 37-59. <https://doi.org/10.14434/ijdl.v7i1.19524>
20. **Dias, M.**, Eick, C. J., & Brantley-Dias, L. (2011). Practicing what we teach: A self-study in implementing an inquiry based curriculum in a middle grades classroom. *Journal of Science Teacher Education*, 22(1), 53-78. <https://doi.org/10.1007/s10972-010-9222-z>
19. **Dias, M.**, & Callahan, B. (2015). Youth Activism: Considering Higher Ground. In Mueller, M. P. & Tippins, D. J. (Eds), *Ecojustice, Citizen Science and Youth Activism: Environmental Discourses in Science Education*, (pp. 313-322). New York: Springer. https://doi.org/10.1007/978-3-319-11608-2_19
18. **Dias, M.** (2013). Practicing what we teach. In Dias, M., Eick, C. J., & Brantley-Dias, L. (Eds.), *Science teacher educators as K-12 teachers: Practicing what we teach* (pp. 7-17). New York: Springer. https://doi.org/10.1007/978-94-007-6763-8_2
17. **Dias, M.**, Eick, C. J., & Brantley-Dias, L. (Eds.) (2013). *Science teacher educators as K-12 teachers: Practicing what we teach*. New York: Springer. [ISBN 978-94-007-6763-8](https://doi.org/10.1007/978-94-007-6763-8)
16. Eick, C. J., Brantley-Dias, L., & **Dias, M.** (2013). Teaching youth again: Reflecting on renewal. In Dias, M., Eick, C. J., & Brantley-Dias, L. (Eds.), *Science teacher educators as K-12 teachers: Practicing what we teach* (pp. 269-286). New York: Springer. https://doi.org/10.1007/978-94-007-6763-8_19
15. Koballa, T.R., Kittleson, J., Bradbury, L.U., & **Dias, M.** (2010). Teacher thinking associated with science-specific mentoring. *Science Education*, 94(6), 1072-1091. <https://doi.org/10.1002/sce.20400>
14. Hassard, J., & **Dias, M.** (2009). *The Art of Teaching Science*. New York: Routledge Taylor and Francis. [ISBN 978-04-159-6528-6](https://doi.org/10.1007/978-0-4-159-6528-6)

13. Koballa, T. R., **Dias, M.**, Atkinson, J. L. (2009). Science Conference Presenters' Images of Inquiry. *School Science and Mathematics*, 109(7), 403-414. <https://doi.org/10.1111/J.1949-8594.2009.TB17871.X>
12. Eick, C.J., **Dias, M.**, & Cook, N.R. (2009). Middle school students' conceptual learning from the implementation of a new NSF supported curriculum: Interactions in Physical Science. *School Science and Mathematics*, 109(1) 45-57. <https://doi.org/10.1111/j.1949-8594.2009.tb17861.x>
11. Rushton, G.T., **Dias, M.**, & McDurmon, G. (2008). Enzyme Inquiry. *The Science Teacher*, 75(6), 60-64. <https://eric.ed.gov/?id=EJ809663>
10. **Dias, M.**, & Upson-Bradbury, L. (2006). Easing the transition: Helping first-year teachers thrive. *The Georgia Science Teacher*, 47(1), 11-14.
9. Ward, C., & **Dias, M.** (2006). Ladybugs across the curriculum. In *Start young! Early childhood science activities* (pp. 97-103). Arlington, VA: NSTA Press.
8. Calandra, B., Brantley-Dias, & **Dias, M.** (2006). Using digital video for professional Development: A preservice teacher's experience with reflection. *Journal of Computing in Teacher Education*, 22(4), 137-145. DOI: [10.1080/10402454.2006.10784549](https://doi.org/10.1080/10402454.2006.10784549)
7. Eick, C. and **Dias, M.** (2005). Building the authority of experience in communities of practice: The development of preservice teachers' practical knowledge through coteaching in inquiry classrooms. *Science Education*, 89, 470-491. <https://doi.org/10.1002/sce.20036>
6. **Dias, M.** (2004). Thoughtful dialogue makes the most of instructional time. In T.R. Koballa & D. J. Tippins (Eds.), *Cases in middle and secondary science education: The promise and Dilemmas* (pp. 147-149). Upper Saddle River, NJ: Merrill/Prentice Hall.
5. Ward, C., & **Dias, M.** (2004). Ladybugs across the curriculum. *Science and Children*, 41(7), 40- 44.
4. Brown, T., & **Dias, M.** (2003). Demonstrations to save the world. *Science Scope*, 26(7), 20-24.
3. Schomer, S., & **Dias, M.** (2003). What teachers are saying about mentoring. *The Georgia Science Teacher*, 43(2), 9-12.
2. Laposata, M., Howick, T., & **Dias, M.** (2002). Current events and technology: Video and audio on the internet. *Science Scope*, 25(6), 82-85.
1. **Dias, M. J.** (2000). Pedagogical perspectives and implicit theories of teaching: First-year science teachers emerging from a constructivist science education program. (9991793)

[Doctoral dissertation, Georgia State University]. UMI.
<https://ui.adsabs.harvard.edu/abs/2000PhDT.....148D/abstract>

PRESENTATIONS

Refereed Conference Presentations:

- 55 Callahan, B., **Dias, M.**, Freeman, K., Gustin, J., Jacobs, E., & Mentzel, A. (2023, January 13). *Impact of professional development on secondary science teachers' perspectives of Argument Driven Inquiry: Focus on qualitative findings* [Conference session]. Association for Science Teacher Education, Salt Lake City, UT, United States.
- 54 **Dias, M.**, Brantley-Dias, L., Edwards, B., & Roman, T. A. (2022, October 8). *STEM teaching for social justice* [Conference session]. Southeastern Association for Science Teacher Education, Gulf Shores, AL, United States.
- 53 Callahan, B., **Dias, M.**, Freeman, K., Gustin, J., Jacobs, E., & Mentzel, A. (2022, October 8). *Impact of professional development on secondary science teachers' perspectives of Argument Driven Inquiry: Focus on quantitative trends* [Conference session]. Southeastern Association for Science Teacher Education, Gulf Shores, AL, United States.
- 52 **Dias, M.**, Brantley-Dias, L., Edwards, B., & Roman, T. A. (2021, October 16). *STEM teaching for social justice* [Conference session]. Southeastern Association for Science Teacher Education, Safety Harbor, FL, United States.
- 51 Roman, T. A., Brantley-Dias, L., Edwards, B., & **Dias, M.** (2021, November). *Addressing issues of social justice in STEM: Supporting teachers' pedagogical intentions and instructional interventions* [Conference session]. Association for Educational Communications and Technology International Convention, Chicago, IL, United States.
- 50 **Dias, M.**, Brantley-Dias, L., Roman, T. A., & Edwards, B. (2021, October 26-28). *Co-constructing social justice pedagogy with STEM teachers* [Conference session]. Society for Information Technology and Teacher Education, Online Conference.
- 49 **Dias, M.**, Brantley-Dias, L., Edwards, B., & Roman, T. A. (2021, October 16). *STEM teaching for social justice* [Conference session]. Southeastern Association for Science Teacher Education, Safety Harbor, FL, United States.
- 48 Edwards, B., **Dias, M.**, Brantley-Dias, L., & Roman, T. A. (2021, October 8). *Induction-phase STEM Teachers' Understanding of Teaching for Social Justice* [Conference session]. Georgia Educational Research Association, Statesboro, GA, United States.
- 47 Arias, A. M., Callahan, B., **Dias, M.**, Kuhel, K. (2021, April 9). *Inservice Elementary Teachers' Successes and Challenges in Using the Crosscutting Concepts in Three-dimensional Learning* [Conference session]. National Association for Research in Science Teaching, virtual.

- 46 Puvirajah, A., Dias, M., Brantley-Dias, L. (2021, April 9). *Examining science teacher reflection in edTPA and Critical Incident Protocols for Supporting Teacher-Directed Professional Growth* [Conference session]. American Educational Research Association, virtual.
- 45 Roman, T. A., **Dias, M.**, Edwards, B., & Brantley-Dias, L. (2021, April 8). *Planning for COVID-19 uncertainty: STEM secondary teachers' designs for student engagement during a time of trauma* [Conference session]. American Educational Research Association Annual Meeting, virtual.
- 44 **Dias, M.**, Roman, T. A., Edwards, B., & Brantley-Dias, L. (January 2021). *STEM teaching amid COVID-19 uncertainty: promoting student engagement in a time of crisis and trauma*. [Conference session]. Association for Science Teacher Education, virtual.
- 43 Puvirajah, A., **Dias, M.**, Brantley-Dias, L. (2020, April). *Toward more agentic reflection: Analyzing beginning science teacher narratives of professional growth* [Conference session]. National Association for Research in Science Teaching, virtual.
- 42 Callahan, B., **Dias, M.**, Kuhel, K., Roman, S. (2020, February). *Better Biology Learning with Language Supports* [Conference session]. Science Teachers Association, Columbus, GA, United States.
- 41 Callahan, B., **Dias, M.**, Arias, A. M. (2020, January). *Impact of a Science Endorsement Program on Content Knowledge and Curricular Decision-making* [Conference session]. Association for Science Teacher Education, San Antonio, TX, United States.
- 40 Callahan, B., **Dias, M.**, Roman, S. (2019, October). *Co-constructing Linguistically Responsive Biology Teaching* [Conference session]. Southeastern Association for Science Teacher Education, Carrollton, GA, United States.
- 39 **Dias, M.**, Pecore, J. (2019, October). *Interpreting Northbound Appalachian Trail Thru-hikers' Informal Learning* [Conference session]. Southeastern Association for Science Teacher Education, Carrollton, GA, United States.
- 38 Brantley-Dias, L., Puvirajah, A., **Dias, M.** (2019, April). *Developing a Multidimensional Reflection Instrument* [Conference session]. American Educational Research Association, Toronto, Canada.
- 37 **Dias, M.**, Brantley-Dias, L., Puvirajah, A. (2019, January). *Science teacher candidates' experiential learning from edTPA and critical incident reflection protocols* [Conference session]. Association for Science Teacher Education, Baltimore, MD, United States.
- 36 **Dias, M.**, Hemler, D., Jones, W. (2019, January). *NSTA/CAEP Preservice Standards: Preparing your Program Report* [Conference session]. Association for Science Teacher

Education, Baltimore, MD, United States.

- 35 Callahan, B., **Dias, M.**, Dail, J., Brookshire, J. (2018, April). *Discourse Analysis of an Online Socioscientific Issues Discussion* [Conference session]. National Association for Research in Science Teaching, Atlanta, GA, United States.
- 34 **Dias, M.** (2018, January). *Preparing the NSTA Science Teacher Preparation Report* [Conference session]. Association for Science Teacher Edu, Baltimore, MD, United States.
- 33 **Dias, M.**, Pecore, J. (2018, October). *Experiential Science Learning on the Appalachian Trail* [Conference session]. Southeastern Association for Science Teacher Education, Birmingham, AL, United States.
- 32 Callahan, B., Dail, J., & **Dias, M.**, Gillis, B. (2016, November). *English and Science Teachers Unite! University and Middle Grades Teachers Collaborate to Design and Promote Cross-Curricular, Ethics-Based Argument Writing Instruction* [Conference session]. National Council of Teachers of English, Atlanta, GA, United States.
- 31 Callahan, B., & **Dias, M.** (2016, January). *High Impact Practices in Undergraduate Education: Influences and Implications for Induction Science Teachers* [Conference session]. Association of Science Teacher Education, Reno, NV, United States.
- 30 Callahan, B., & **Dias, M.** (2015, October). *Using the POE Framework with Middle School Earth Science Students* [Conference session]. Southeastern Association of Educators of Teachers of Science (SASTE), Columbus, GA, United States.
- 29 **Dias, M.**, Gibson, K., Jackson, K., Pedersen, M. (2015, February). **Dias, M.** *Conservation Curriculum Project* [Conference session]. Georgia Science Teachers Association, Macon, GA, United States.
- 28 Eick, C. & **Dias, M.** (2014, September). *The Perspective of Vocation and the Call to Teach in Science Teacher Formation* [Conference session]. Southeastern Association of Educators of Teachers of Science (SASTE), Savannah, GA, United States.
- 27 **Dias, M.**, Eick, C., & Brantley-Dias, L. (2013, January). *Science Teacher Educators Teaching K-12 Students as Professional Development: An Interactive Panel Discussion on Various Approaches, Goals, and Benefits* [Conference session]. Association of Science Teacher Education, Charleston, S.C., United States.
- 26 Eick, C. J., **Dias, M.**, & Brantley-Dias, L. (2012, October). *Practicing what we teach: Thematic analysis of learning across contexts* [Conference session]. Southeastern Association for Science Teacher Education, Macon, GA, United States.
- 25 **Dias, M.**, McCoy, W., & Orman, H. (2012, February). *Ten tried and true high school biology lessons* [Conference session]. Georgia Science Teachers Association, Atlanta,

GA, United States.

- 24 **Dias, M.**, & Brantley-Dias, L. (2012, January). *Scyberspace 2.0.: Using Web 2.0 tools in 4th and 5th grade inquiry-based science curricula* [Conference session]. Association of Science Teacher Education, Clearwater, FL, United States.
- 23 Criswell, B., **Dias, M.**, Maley, T. (2011, October). *Science talk: Allowing students to take ownership of the discussion around a big idea of science* [Conference session]. Southeastern Association of Science Teacher Educators, Athens, GA, United States.
- 22 **Dias, M.**, Bromfield-Lee, D., Pacifici, L.B., & Rushton, G.T. (2010, October). *No need to hate NCATE: Evidencing the standards without jumping through hoops* [Conference session]. Southeastern Association of Science Teacher Educators, Decatur, GA, United States.
- 21 **Dias, M.**, Koballa, T., Kittleson, J., & Bradbury, L. (2010, March). *Teacher thinking associated with science-specific mentor preparation* [Conference session]. Association for Research in Science Teaching, Philadelphia, PA, United States.
- 20 Brantley-Dias, L., **Dias, M.**, Frisch, J., & Rushton, G. (2008, March). *The role of digital video and critical incident analysis in learning to teach science* [Conference session]. American Educational Research Association, NY, United States.
- 19 **Dias, M.**, & Eick, C. (2008, January). *Practicing what we teach: Interpreting a teacher educator's experiences with 8th grade physical science students* [Conference session]. Association of Science Teacher Education, St. Louis, MO, United States.
- 18 Eick, C., & **Dias, M.** (2008, January). *Evaluation of the Interactions in Physical Science™ guided inquiry curriculum* [Conference session]. Association of Science Teacher Education, St. Louis, MO, United States.
- 17 **Dias, M.**, Frisch, J.K., Rushton, G., & Brantley-Dias, L. (2007, October). *Helping new science teachers learn from teaching: Analysis of critical incidents and student learning* [Conference session]. Southeastern Association of Science Teacher Educators, Valdosta, GA, United States.
- 16 **Dias, M.**, & Rushton, G. (2007, January). *Contextualized analysis of dispositions for secondary science teaching* [Conference session]. Association for Science Teacher Education, Clearwater, FL, United States.
- 15 **Dias, M.**, & Rushton, G. (2006, October). *Secondary science teaching reconnaissance: An experiential course to help university science majors evaluate teaching as a career choice*. Panel discussion presentation at the Fall Conference of The Renaissance Group, Arlington, VA, United States.

- 14 Eick, C., **Dias, M.**, & McCoy, W. (2006, October). *Optimizing your doctoral degree to prepare for the science education career of your choice: A sharing from three different job worlds* [Conference session]. Southeastern Association of Science Teacher Educators, Macon, GA, United States.
- 13 **Dias, M.**, Hudson, D., & Martin-Hansen, L. (2006, February). *Enhancing inquiry methods for middle grades Earth and life science* [Conference session]. Georgia Science Teachers Association, Columbus, GA, United States.
- 12 **Dias, M.** & Eick, C. (2005, October). *Making the theoretical practical: Essential features of inquiry guiding reflective practice* [Conference session]. Southeastern Association of Educators of Teachers of Science (SASTE), Athens, GA, United States.
- 11 **Dias, M.** (2005, January). *Mentoring for inquiry-based teaching: Barriers and breakthroughs* [Conference session]. Association for the Education of Teachers of Science, Colorado Springs, CO, United States.
- 10 **Dias, M.**, & Dias, L.B. (2004, April). *Biographical and contextual influences on three secondary science teachers' pedagogy: Narratives of their induction years* [Conference session]. American Education Research Association, San Diego, CA, United States.
- 9 **Dias, M.**, Koballa, T.R., Wheeler-Toppen, J.L. (2004, January). *The practical knowledge of science teacher mentors: Border crossing to educative mentoring* [Conference session]. Association for the Education of Teachers of Science, Nashville, TN, United States.
- 8 Brown, T. & **Dias, M.** (2003, February). *Demonstrations to save the world* [Conference session]. Georgia Science Teachers Association, Jekyll Island, GA, United States.
- 7 **Dias, M.**, & Dias, L. (2003, February). *Pedagogical patterns and practical theories of three high school science teachers emerging from the induction phase* [Conference session]. Association for the Education of Teachers of Science, St. Louis, MO, United States.
- 6 Koballa, T.R., Abayomi, B., Gerber, B., **Dias, M.**, Upson, L., & Wheeler, J. (2003, February). *Mentoring in science: Promises and dilemmas* [Conference session]. Georgia Science Teachers Association, Jekyll Island, GA, United States.
- 5 Schomer, S. & **Dias, M.** (2001, October). *Listening to the mentors: Patterns of practice of experienced science teachers collaborating with pre-service science teaching interns* [Conference session]. Southeastern Association for the Education of Teachers in Science, Tampa, FL, United States.
- 4 **Dias, M.**, & Hassard, J. (2001, March). *Narrowing the theory-practice gap: First year science teachers emerging from a constructivist science education program* [Conference session]. National Association for Research in Science Teaching, St Louis, MO, United States.

States.

- 3 **Dias, M., & Hassard, J.** (2001, January). *From practice to theory - narrowing the gap: First year science teachers emerging from a constructivist science education program* [Conference session]. Association for the Education of Teachers in Science, Costa Mesa, CA, United States.
- 2 **Dias, M., Hutcheson, C., & Mumma, B.** (2000, October). *The TEEMS program: An alternative induction to science teacher education* [Conference session]. Southeastern Association for the Education of Teachers in Science, Auburn, AL, United States.
- 1 **Dias, M., & Hassard, J.** (2000, April). *Experiences in a constructivist community of practice: an inquiry into TEEMS - an alternative science teacher education program* [Conference session]. National Association for the Education of Teachers in Science, New Orleans, LA, United States.

PROFESSIONAL DEVELOPMENT FOR K-12 SCIENCE TEACHERS

Invited Workshops for Teachers:

- **Dias, M.** (2020, January). *Models Fostering Explanations Using Crosscutting Concepts*. Presentation and discussion with high school biology teachers of the Cobb County School District, Pope High School, Marietta, GA.
- **Dias, M., & Sukenick, A.** (2014, July). *Watershed Conservation Curriculum Project*. Presentation and discussion with high school biology/environmental science teachers of the Cobb County School District, Lassiter High School, Marietta, GA.
- **Dias, M.** (2013, August). *Smooth science runnings: Getting the year started off right!* Presentation and discussion with middle and high school science teachers of the Cobb County School District, Kennesaw Mountain High School, Kennesaw, GA.
- **Dias, M., & Pacifici, L.B.** (2010, September). *Culturally responsive pedagogy in your science teaching*. Seminar for Robert Noyce Scholars of KSU MAT Science program, Kennesaw, GA.
- **Dias, M.** (2010, January). *Building science knowledge through inquiry learning*. Workshop for 4th grade science teachers of Glenwood Academy, Decatur, GA.
- **Dias, M. & Rushton, G.** (2009, February). *Enzyme inquiry: A coupled inquiry lesson for high school biology*. Workshop presented at the Annual Leadership Conference of the Georgia Science Teachers Association, Savannah, GA.
- **Dias, M.** (2007, November). *Inquiry in Biology*. Two professional development workshops for middle and high school life science teachers of the Cobb County School District, Marietta, GA.
- **Dias, M.** (2007, May). *Creating the classroom environment: The first days of school*. Professional development workshop for secondary teacher education graduates of Kennesaw State University, Kennesaw, GA.
- **Dias, M.** (2006, September). *Applying Raye's Sesame Street genetics to the 5th grade life science standard GPS S5L2*. Professional development workshop for 5th grade teachers of the Marietta City School District, Marietta, GA.

- **Dias, M.**, Eick, C. & Schomer, S. (2005, October). *Using inquiry in the science classroom*. Professional development workshop at the Cobb County School District High School Science Teachers In-Service, Kennesaw Mountain High School, Kennesaw, GA.
- **Dias, M.** (2003, June). *Weather wonderings: Inquiry activities for a rainy day*. Professional development workshop for participants of Dr. Tom Brown's "Curiosity and Comprehension" summer program for elementary educators, Austell, GA.
- **Dias, M.** (2002, November). *Inquiries into cellular energy concepts*. Professional development workshop for the "Inquiring Scientists Want to Know" Conference of the Paulding County School District, Hiram, GA.
- **Dias, M.** & Sanchez, W. (2002, April). *Management strategies to promote engagement in mathematics and science*. Professional development workshop for Sprayberry High School mathematics and science teachers, Marietta, GA.
- **Dias, M.** & Brown, T. (2002, February). *Hands-on science for the K-5 QCCs*. Professional development workshop for, Frey Elementary School teachers, Kennesaw, GA.

Invited Seminars or Presentations:

- Kuhel, K., Callahan, B., **Dias, M.** (2018, February). *Making biology accessible for English language learners*. An instructional session for Georgia educators at KSU ESOL Conference, Kennesaw State University, Kennesaw, GA.
- **Dias, M.** & Callahan, B. (2013, September). *Georgia Academic Decathlon science review*. An instructional session for Georgia high school students, Kennesaw State University, Kennesaw, GA.
- **Dias, M.** & Brantley-Dias, L. (2012, December). *Distinguishing between the conceptual and theoretical framework in the dissertation*. A presentation and discussion with science education doctoral students at Georgia State University, Atlanta, GA.
- **Dias, M.** (2004, November). *Enacting inquiry pedagogy through co-construction*. Position paper discussion with science education doctoral students and Dr. Lisa Martin-Hansen, Georgia State University, Atlanta, GA.
- **Dias, M.** (2004, November). *A teacher's response to Cobb's most recent evolution brouhaha*. A presentation and discussion with science education doctoral students in Dr. David Jackson's ESCI 9005 seminar, University of Georgia, Athens, GA.
- **Dias, M.** (2003, July). *Forming and working with your doctoral committee*. A presentation and discussion for Dr. Laurie Brantley-Dias' EDCI 9900 course, Critique of Educational Research, Georgia State University, Atlanta, GA.
- **Dias, M.** & Brown, T. (2002, October). *Science fair kick-off: Demonstrations and questions to get you started!* Science assembly for the students of Twiggs County Middle School. Jeffersonville, GA.

Non-Refereed Conference Presentations:

- **Dias, M.** (2010, March). *Using AIMS 4th grade life science activities to teach nature of science and inquiry standards*. Workshops presented at the Cobb/Northwest Georgia Math-Science Partnership Mini-Conference, Kennesaw, GA.

- Brown, T., & **Dias, M.** (2003, February). *Curiosity initiates comprehension: Why effective teaching is about asking the right questions*. Keynote address for the Future Educator's On-Campus Retreat, Center for Field Experiences and Partnerships, Kennesaw State University, Kennesaw, GA.
- **Dias, M.** (2002, November). *Engaging the sense of wonder with life science inquiry activities*. Professional development workshop for the Students First Conference, Center for Field Experiences and Partnerships, Kennesaw State University, Kennesaw, GA.
- **Dias, M.** & Brown, T. (2002, January). *Strengthening student engagement: What we've learned along the way*. Keynote address for the Students First Conference, Center for Field Experiences and Partnerships, Kennesaw State University, Kennesaw, GA.

GRANTS AND CONTRACTS

Funding for Projects as PI:

- **Dias, M.** (Principal), Ensign, W.E. (Co-Principal), “Watershed Conservation Curriculum: A Cobb/Paulding Environmental Science Project. Improving Teacher Quality State Grants – Title II, Part A of the NCLB Act, \$44,573. Funded February 2014 - May 2015.
- **Dias, M.** (Principal), Koballa, T. (Co-Principal), & Sanchez, W. (Co-Principal), “Georgia teacher support specialist in science and mathematics (TS³M): Toward a model of sustainable mentoring for new teachers in critical need areas.” U.S. Department of Education: Improving Teacher Quality, \$114,997. Funded March 2003-June 2005.

Funding for Projects as CoPI:

- **Dias, M.** & Edwards, B. (Co-Principal Investigators), Woodrow Wilson Foundation Grant, Induction Support Phase \$132,000. August 2019-May 2021.
- Linenberger, K. J. (Principal), **Dias, M.** (Co-Principal), Dean, M. L. (Co-Principal), Meades, G. D. (Supporting), "Bridging the gap between biology & chemistry content by coordinating curriculum," Improving Teacher Quality State Grants – Title II, Part A of the NCLB Act, \$67,512.20. Unfunded.
- Ensign, W. E. (Principal), **Dias, M.** (Co-Principal), "Inquiry-Based Curriculum for Watershed Conservation," National Fish and Wildlife Foundation, Private, \$44,597.00. (June 2013). Unfunded.
- Brantley-Dias, L. (Principal), Davis, E. (Co-Principal), & **Dias, M.** (Co-Principal), “Sci-berspace 2.0 Project: Using Web 2.0 Tools in 4th and 5th Grade Inquiry-based Science Curriculum,” U.S. Department of Education: Improving Teacher Quality, \$33,356. Funded March 2011-May 2012.
- Pacifici, L. (Principal), **Dias, M.** (Co-Principal), “Research in Biology Integrated with Teaching,” U.S. Department of Education: Improving Teacher Quality State Grants – Title II, Part A of the NCLB Act, State, \$31,445. Funded March 2011-May 2012.
- Hauge, X. (Principal), and **Dias, M.** (Co-Principal), “Biotech inquiries: A workshop on biotechnology.” U.S. Department of Education: Improving Teacher Quality, \$19,282. Funded March 2004-May 2005.

- Koballa, T.R. (Principal), Abayomi, B. (Co-Principal), Gerber, B., **Dias, M.** (Co-Principal), “Teacher support specialist in science (TS3): Providing a framework for improving science teaching in Georgia.” Eisenhower Higher Education Act, Title II, U.S. Department of Education, \$53,040. Funded February 2001-May 2003.
- Rascati, R. (Principal), & **Dias, M.** (Co-Principal), “BioTech 2K2: A workshop on biotechnology.”
- Eisenhower Higher Education Act, Title II, U.S. Department of Education, \$19,207. Funded March 2001-May 2002.

PROFESSIONAL SERVICE

SERVICE TO KENNESAW STATE UNIVERSITY

University:

- Teacher Education Appeals Board, Spring 2013
- Chair, Teacher Education Council, 2011-2012
- Co-chair, Teacher Education Council, 2009-2011
- Search Committee, Center for Field Experiences, 2003-2004
- NCATE Standard Action Team for Diversity, 2001-2003

Bagwell College of Education

- Committee Member, Bagwell College of Education Promotion and Tenure Committee, Fall 2020
- Tenure and Promotion Committee, representing Educational Leadership, 2017-2018

College of Science and Mathematics:

- Promotion and Tenure Review Committee, Department of Statistics, 2020-2021
- Chair, Biology Undergraduate Curriculum and Assessment Program Committee, 2015-2017
- Codirector of OwlTeach, 2014-2017
- Undergraduate Policies and Curriculum Committee, Fall 2012- Summer 2014

Department or Program:

- Program Coordinator, Science Education Initial Certification, Secondary and Middle Grades Education, 2022-present
- Tenure and Promotion Committee Member, Secondary and Middle Grades Education, 2022-2023
- Chair, Tenure and Promotion Committee, Secondary and Middle Grades Education, 2021-2022
- Secondary Mathematics and Science Field Experience Coordinator, Fall 2020
- Committee Member, Department Faculty Council, 2019-2020
- Committee Member, Secondary and Middle Grades Education Curriculum Committee, 2019-2020
- Search Committee Member, Chair of Secondary and Middle Grades Education, 2019
- Search Committee Member, Chair of Secondary and Middle Grades Education, 2018

- Search Committee Member, Chair of Ecology, Evolution, and Organismal Biology, 2017
- Science Education Liaison for the M.Ed. degree program 2018-present
- Social Committee, Secondary and Middle Grades, 2017-present
- Biology Seminar Committee, 2016-2017
- Chair, Search Committee, Biology Education, 2011-2012.
- Biology and Physics Curriculum Committee, 2010-present.
- Tenure and Promotion Committee, Department of Biology and Physics, 2009-2016.
- MAT Biology Coordinator, 2009-2010.
- Search Committee, Science Education MAT Coordinator, 2007, chair. Cancelled due to budget cuts.
- Georgia Science Bowl Region 6 Competition reader, 2006-2010.
- Search Committee, Physics Education, 2006-2007.
- Chair, Search Committee, Biology Education, 2005-2006. Directed successful searches for two tenure-track Assistant Professors of Biology Education.
- Biology Education Coordinator, 2005-present.
- Strategic Planning Committee, 2003-2004. Responsible for convening meeting, taking minutes, and providing teacher educator perspective.
- Georgia Science Bowl Region 6 Competition, 2002-2004, director. Responsible for organizing volunteers and procedures for hosting a competitive event for science students from several area high schools.
- Biology Curriculum Assessment Committee, 2001-2003, member. Responsible for collecting and organizing departmental survey data regarding instructional assessment practices.

SERVICE TO THE PROFESSION

Service to Journals:

- *Electronic Journal of Science Education*, reviewer, 2013; Editorial Review Board 2014-2020
- *International Journal of Designs for Learning*, Reviewer, 2015-2018.
- *Journal of Science Teacher Education*, reviewer, 2008-2011; Editorial Review Board 2012-2019
- *Journal of Elementary Science Education*, reviewer, 2006 – 2010
- *Journal of Problem-Based Learning*, reviewer, 2006 – 2008
- *The Science Teacher*, reviewer, 2004 – present

Service to Professional Associations:

Association of Science Teacher Education, (ASTE, formerly AETS)

- ASTE Proposal Reviewer, 2016, 2020.
- Regional Representative on ASTE Board, 2012-2014
- ASTE Professional Development Thread Coordinator, 2012
- Southeast Regional Representative to ASTE, 2009-2010
- ASTE Awards Committee, 2008 – 2010.

- ASTE Policy and Reform Thread Coordinator, 2005-2007. Responsible for recruiting conference proposals reviewers, organizing and reporting review results to conference planning committee.
- AETS Proposal Reviewer, 2002-2004. Responsible for reviewing eight to twelve conference proposals each year served.
- Georgia Science Teachers Association (GSTA) 2003-2004 Executive Board, Secretary (elected office). Responsible for recording minutes of monthly board meetings, planning and delivery of annual leadership conference.

National Association for Research in Science Teaching (NARST),

- Conference Proposal Reviewer, 2019, 2021
- Outstanding Paper Award Committee. Responsible for evaluating 12 to 18 conference papers and attending committee meeting each year served, 2003-2005.

National Science Teachers Association (NSTA),

- Chair of NSTA/CAEP Audit Team and Reports Coordinator, 2017-2019
- Chair of NSTA Accreditation Subcommittee, 2017-2019
- Member, NSTA Preservice Teacher Education Committee, 2017-2019
- CoChair of NSTA/CAEP Audit Team, 2016-2017
- Reviewer and Auditor, NSTA/CAEP Program Reports, 2015-2016
- Board of Reviewers, NSTA/CAEP Program Reports, 2013-2015
- Board of Reviewers, NSTA/NCATE Program Reports, 2011-2013

Project Evaluation:

- External Evaluator (2022-present), NSF Award Number 1758443, *Preparing STEM Teachers for Urban and Rural School Districts in Northwest Georgia*. Principal Investigator: Jill Cochran, Berry College.
- External Evaluator (2022-present), NSF Award Number 2151061, *Educating Science and Mathematics Majors to Teach with Social Justice Models in High-Needs Schools*. Principal Investigator: John Pecore, University of West Florida.
- External Evaluator (2022-present), NSF Award Number 2147890, *Developing Computer Science Master Teachers for Rural South Georgia*. Principal Investigator: Thomas Koballa, Mercer University.
- External Evaluator (2020-2021), NSF Award Number 1949866, *Building Capacity in Support of the Developing Computer Science Master Teachers for Rural South Georgia*. Principal Investigator: Thomas Koballa, Mercer University.

Reviewing Activities:

- Reviewed chapters for Finson, K. D., and Pedersen, J. E. (Eds.) (2015). *Application of visual data in K-16 science classrooms*. Charlotte, N.C.: Information Age Publishing.
- Reviewed program proposal to the Board of Regents Educator Preparation Advisory Committee for Savannah State University, B.S. with major in Biology, concentration in Secondary Education, 2011.

- Reviewed chapter for Weinburgh, M., and Wiesman, K. (Eds.) *Women's experiences in leadership in K-12 science education communities: Becoming and being*, February, 2008.
- Reviewed book for NSTA Press *From Pole to Pole: The biology of climate change*, January 2008.
- Proposal reviewer, NSTA National Convention held in Atlanta, GA, 2003
- Oxford University Press, 2002, reviewed *The Art of Teaching Science*, by Jack Hassard.

Service to Local School Districts:

- Co-teacher 26 class sessions, 4th block on-level sophomore Biology with Jennifer Callison-Bliss at Wheeler High School, Cobb County School District, Marietta, GA, January – May, 2019.
- Science Fair Judge, Cobb and Paulding Counties, annually 2005 – 2016
- Paulding County High School, STEM Academy Advisory Board Member and KSU Liaison, 2017-18.
- Co-teacher, ten half-days, on-level sophomore Biology with Heather Glazebrook at Osborne High School, Cobb County School District, Marietta, GA, January – May, 2016.
- Science Teacher Mentoring for Atlanta Public School District (Therrell (LGPP) and Carver (Arts) High Schools), Institute for Student Achievement and Kennesaw Mountain Writing Project, Spring 2013.
- Instructional Team Member, Summer Professional Development Workshops, Math/Science Partnership Grant, High School Biology, Cobb County School Districts, March 2015 to July 2016.
- Co-teacher, one day per week in four 7th grade Life Science classes at Griffin Middle School, Cobb County (Georgia) School District, for a research collaboration entitled *Developing literacy and thinking skills in middle school science through socioscientific issues*, Academic Year 2012-2013.
- Instructional Team Member, Summer Professional Development Workshops, Math/Science Partnership Grant, Grade 7 Cohorts of Cobb County, and Marietta City School Districts, July 2011 and July 2012.
- Co-teacher, ten half-days, on-level freshman Biology with Portia Gayle at Osborne High School, Cobb County School District, Marietta, GA, January – May, 2011.
- Instructional Team Member, Summer Professional Development Workshops, Math/Science Partnership Grant, Grades 3 Cohorts of Bartow County, Cobb County, and Polk County School Districts, July 2009 and July 2010.
- Cobb County School District, Promoting Inquiry Methods for the Georgia Performance Standards in High School Biology, 2006-2007.
- Paulding County School District, Promoting Inquiry Methods for the Georgia Performance Standards in Earth and Life Science, 2005-2006.
- Gordon County Public Schools, Support for Standards-Based Science Teaching, 2002-2003.