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 STUDENTS AT KSU

155 Pre-service Secondary Science Teachers since 2001, 84% retention in the profession:

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, Logan Chatham, Lindsey Cofer, 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, 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.

Directed Methods:

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

STUDENT ADVISING AT KSU

Undergraduate students

33 students in B.S. Biology, Education Track, 2015-2017
25 B.S. Biology Education students, 2013-2014
40 B.S. Biology Education students, 2009-2013
60 B.S. Biology Education students, 2006-2009
42 B.S. Biology Education students, 2004-2006
30 B.S. Biology Education students, 2001-2004

MENTORING STUDENT RESEARCH

Doctoral Dissertation Committee Member:

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

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

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

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

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

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

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

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.

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

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

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

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

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

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

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:

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. Paper presented at the Association for Educational Communications and Technology International Convention, Chicago, IL.

50 **Dias, M.**, Brantley-Dias, L., Roman, T. A., & Edwards, B. (2021, October 26-28). *Co-constructing social justice pedagogy with STEM teachers.* "Birds of a Feather" presented virtually at SITE Interactive Online Conference.

49 **Dias, M.,** Brantley-Dias, L., Edwards, B., & Roman, T. A. (2021, October 16). *STEM teaching for social justice*. Paper presented virtually at the Southeastern Association for Science Teacher Education, Safety Harbor, FL.

48 Edwards, B., **Dias, M.**, Brantley-Dias, L., & Roman, T. A. (2021, October 8*). Induction-phase STEM Teachers' Understanding of Teaching for Social Justice*. Paper presented virtually at the Georgia Educational Research Association.

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.* Presentation at the annual meeting of the National Association for Research in Science Teaching.

42 Callahan, B., **Dias, M.**, Kuhel, K., Roman, S. (2020, February*). Better Biology Learning with Language Supports.* Presentation at the annual meeting of the Georgia Science Teachers Association, Columbus, GA.

41 Callahan, B., **Dias, M.**, Arias, A. M. (2020, January*). Impact of a Science Endorsement Program on Content Knowledge and Curricular Decision-making.* Presentation at the annual meeting of the Association for Science Teacher Education, San Antonio, TX.

40 Callahan, B., **Dias, M.**, Roman, S. (2019, October). *Co-constructing Linguistically Responsive Biology Teaching*. Presentation at the annual meeting of the Southeastern Association for Science Teacher Education, Carrollton, GA.

39 **Dias, M.**, Pecore, J. (2019, October). *Interpreting Northbound Appalachian Trail Thru-hikers' Informal Learning*. Presentation at the annual meeting of the Southeastern Association for Science Teacher Education, Carrollton, GA.

38 Brantley-Dias, L., Puvirajah, A., **Dias, M.** (2019, April). *Developing a Multidimensional Reflection Instrument*. Presentation at the annual meeting of the 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*. Roundtable presentation at the annual meeting of the Association for Science Teacher Education, Baltimore, MD.

36 **Dias, M.,** Hemler, D., Jones, W. (2019, January). *NSTA/CAEP Preservice Standards: Preparing your Program Report*. Workshop presented at the annual meeting of the Association for Science Teacher Edu, Baltimore, MD.

35 Callahan, B., **Dias, M.**, Dail, J., Brookshire, J. (2018, April). *Discourse Analysis of an Online Socioscientific Issues Discussion*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

34 **Dias, M.** (2018, January). *Preparing the NSTA Science Teacher Preparation Report*. Workshop presented at the annual meeting of the Association for Science Teacher Edu, Baltimore, MD.

33 **Dias, M.**, Pecore, J. (2018, October). *Experiential Science Learning on the Appalachian Trail*. Paper presented at the annual meeting of the Southeastern Association for Science Teacher Education, Birmingham, AL.

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. Workshop presented at the annual meeting of the National Council of Teachers of English, Atlanta, GA.

31 Callahan, B., & **Dias, M.** (2016, January). *High Impact Practices in Undergraduate Education: Influences and Implications for Induction Science Teachers*. Paper presented at the annual meeting of the Association of Science Teacher Education, Reno, NV.

30 Callahan, B., & **Dias, M.** (2015, October). *Using the POE Framework with Middle School Earth Science Students.* Presentation at the annual meeting of the Southeastern

Association of Educators of Teachers of Science (SASTE), Columbus, GA.

29 **Dias, M.,** Gibson, K., Jackson, K., Pedersen, M. (2015, February). **Dias, M.** *Conservation Curriculum Project.* Workshop presented at the annual meeting of the Georgia Science Teachers Association, Macon, GA.

28 Eick, C. & **Dias, M.** (2014, September). *The Perspective of Vocation and the Call to Teach in Science Teacher Formation.* Presentation at the annual meeting of the Southeastern Association of Educators of Teachers of Science (SASTE), Savannah, GA.

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.* Panel discussion at the annual meeting of the Association of Science Teacher Education, Charleston, S.C.

26 Eick, C. J., **Dias, M.,** & Brantley-Dias, L. (2012, October). *Practicing what we teach: Thematic analysis of learning across contexts*. Presentation at the annual meeting of the Southeastern Association for Science Teacher Education, Macon, GA.

25 **Dias, M**., McCoy, W., & Orman, H. (2012, February). *Ten tried and true high school biology lessons*. Workshop presented at the annual meeting of the Georgia Science Teachers Association, Atlanta, GA.

24 **Dias, M**., & Brantley-Dias, L. (2012, January). *Sciberspace 2.0.: Using Web 2.0 tools in 4th and 5th grade inquiry-based science curricula*. Roundtable discussion presented at the annual meeting of the Association of Science Teacher Education, Clearwater, FL.

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.* Workshop presentation at the annual meeting of the Southeastern Association of Science Teacher Educators, Athens, GA.

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*. Workshop presentation at the annual meeting of the Southeastern Association of Science Teacher Educators, Decatur, GA.

21 **Dias, M.,** Koballa, T., Kittleson, J., & Bradbury, L. (2010, March). *Teacher thinking associated with science-specific mentor preparation*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

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*. Paper presented at the Annual Meeting of the American Educational Research Association, New York.

19 **Dias, M.**, & Eick, C. (2008, January). *Practicing what we teach: Interpreting a teacher educator's experiences with 8th grade physical science students*. Paper presented at the Annual Meeting of the Association of Science Teacher Education, St. Louis, Mo.

18 Eick, C., & **Dias, M.** (2008, January). *Evaluation of the Interactions in Physical Science™ guided inquiry curriculum.* Poster presented at the Annual Meeting of the Association of Science Teacher Education, St. Louis, Mo.

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*. Paper presented at the Annual Meeting of the Southeastern Association of Science Teacher Educators, Valdosta, GA.

16 **Dias, M.**, & Rushton, G. (2007, January). *Contextualized analysis of dispositions for secondary science teaching*. Paper presented at the Annual Meeting of the Association for Science Teacher Education, Clearwater, FL.

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.

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. Discussion session presented at the annual meeting of the Southeastern Association of Science Teacher Educators, Macon, GA.

13 **Dias, M.**, Hudson, D., & Martin-Hansen, L. (2006, February). *Enhancing inquiry methods for middle grades Earth and life science*. Workshop presented at the Annual Leadership Conference of the Georgia Science Teachers Association, Columbus, GA.

12 **Dias, M.** & Eick, C. (2005, October). *Making the theoretical practical: Essential features of inquiry guiding reflective practice*. Workshop presented at the annual meeting of the Southeastern Association of Educators of Teachers of Science (SASTE), Athens, GA.

11 **Dias, M.** (2005, January). *Mentoring for inquiry-based teaching: Barriers and breakthroughs*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science, Colorado Springs, CO.

10 **Dias, M**., & Dias, L.B. (2004, April). *Biographical and contextual influences on three secondary science teachers' pedagogy: Narratives of their induction years*. Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA, April.

9 **Dias, M**., Koballa, T.R., Wheeler-Toppen, J.L. (2004, January). *The practical knowledge of science teacher mentors: Border crossing to educative mentoring*. Roundtable paper

session at the Annual Meeting of the Association for the Education of Teachers of Science, Nashville, TN.

8 Brown, T. & **Dias, M.** (2003, February). *Demonstrations to save the world*. Workshop on population growth, green house gases and global warming at the Annual Conference of the Georgia Science Teachers Association, Jekyll Island, GA.

7 Dias**, M.**, & Dias, L. (2003, February). *Pedagogical patterns and practical theories of three high school science teachers emerging from the induction phase*. Poster presented at the Annual Meeting of the Association for the Education of Teachers of Science, St. Louis, MO.

6 Koballa, T.R., Abayomi, B., Gerber, B., **Dias, M**., Upson, L., & Wheeler, J. (2003, February). *Mentoring in science: Promises and dilemmas*. Paper presented at the Annual Meeting of Georgia Science Teachers Association, Jekyll Island, GA.

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. Paper presented at the Annual Meeting of the Southeastern Association for the Education of Teachers in Science, Tampa, FL.

4 **Dias, M**., & Hassard, J. (2001, March). *Narrowing the theory-practice gap: First year science teachers emerging from a constructivist science education program*. Poster presentation given at the Annual Meeting for the National Association for Research in Science Teaching, St Louis, MO.

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. Paper presented at the Annual Meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA.

2 **Dias, M**., Hutcheson, C., & Mumma, B. (2000, October). *The TEEMS program: An alternative induction to science teacher education*. Paper presented at the Annual Meeting of the Southeastern Association for the Education of Teachers in Science, Auburn, AL.

1 **Dias, M.**, & Hassard, J. (2000, April). *Experiences in a constructivist community of practice: an inquiry into TEEMS - an alternative science teacher education program*. Paper presented at the Annual Meeting of the National Association for the Education of Teachers in Science, New Orleans, LA.

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 Decathalon science review.* An instructional session for Georgia high school students, Kennesaw State University, Kennesaw, GA.
- **Dias, M.** & Brantley-Dias, L. (2012, December). *Distingishing 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 (TS^3M): 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:

- Chair, Tenure and Promotion Committee, Secondary and Middle Grades Education, 2021-present
- 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
- Proposal reviewer, NSTA National Convention held in Atlanta, GA, 2003

Project Evaluation:

- Evaluator for NSF-funded project at University of West Florida: *Educating Science and Mathematics Majors to Teach with Social Justice Models in High Needs Schools* (NSF 2151061) 2022-present, Principal Investigator, John Pecore.
- Evaluator for NSF-funded project at Mercer University: *Developing Computer Science Master Teachers for Rural South Georgia*, 2022-present, Principal Investigator, Tom Koballa.
- Evaluator for NSF Capacity Building Grant *Developing Computer Science Master Teachers for Rural South Georgia*, 2020-2021, Principal Investigator, Tom Koballa.

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.
- Oxford University Press, 2002, reviewed *The Art of Teaching Science*, by Jack Hassard.

Service to Local School Districts:

- Co-teacher 26 class sessions, 4th^{tth} 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.