

SANDRA BONORDEN NITE

EDUCATION

- Ph.D. Mathematics Education, Texas A&M University, 2012
w/ Advanced Research Methods Certification
- M.M. Music Education, Texas State University, 1997
- M.S. Mathematics, Texas State University, 1977
Thesis: Solutions of Partial Differential Equations by the Use of Operators
- B.S. Mathematics, Texas State University, 1975

PROFESSIONAL LICENSES

- TAMU* Professional Online Teaching Certification, 2012
- Texas* Educator Certificate Master Mathematics Teacher, 2007- 2024
- Texas* Lifetime Certificate Secondary Music, English, English Language Arts, 1979 – Present
- Texas* Lifetime Certificate Secondary Mathematics, Computer Science, Biology, Chemistry, Composite Science, 1977 – Present
- USA* Lifetime Level III OAKE-Endorsed Kodály Certification, 1996 - Present

EDUCATIONAL EMPLOYMENT

University

- 2018-2019 Assistant Lecturer, Department of Mathematics and Statistics, University of Wyoming, Laramie.
- 2013-present Research Scientist, Texas A&M University, College Station, Tx
- 2008 – 2018 Associate Director, Center for Technology-Mediated Learning in Mathematics, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2006 – 2019 Director of AP Institutes in Mathematics, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2005 – 2012 Senior Lecturer, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2012 Course Coordinator and Week-in-Review Instructor for Math 166, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2009-2010 Course Coordinator and Week-in-Review Instructor for Math 131, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2008-2011 Mathematics Instructional Coaches, TEA Registered Service Provider, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 1975-1977 Assistant Instructor, Department of Mathematics, College of Science, Texas State University, San Marcos, TX

Community College

- 1996-2005 Adjunct Mathematics/Music Instructor, Department of Mathematics/Music, Division of Mathematics and Science/Division of Fine Arts, Brazosport College, Lake Jackson, TX
- 1990-1996 Mathematics Instructor, Division of Mathematics and Science, Brazosport College, Lake Jackson, TX
- 1981-1990 Adjunct Mathematics Instructor, Brazosport College, Lake Jackson, TX

Public Schools

1998-2005	Mathematics Curriculum Coordinator & Math/Science Teacher, Sweeny High School, Sweeny Independent School District, Sweeny, TX
1996-1998	Mathematics/Science Teacher, Sweeny High School, Sweeny Independent School District, Sweeny, TX
1978-1983	Director, Computer Science Program, Sweeny High School, Sweeny Independent School District, Sweeny, TX
1977-1983	Mathematics/Science/Computer Science Teacher, Sweeny High School, Sweeny, TX

RESEARCH INTERESTS

Secondary Mathematics Education
Teacher Professional Development

Bridge Programs for College Mathematics
Music Education

PUBLICATIONS

- Nite, S. B., Bicer, A., Currens, K.A., & Tejani, R. * (October, 2020). Increasing STEM interest through coding with microcontrollers. In *Proceedings of 2020 IEEE Frontiers in Education Conference: Education for a Sustainable Future*. Uppsala, Sweden (online due to COVID).
- Li, Y., Wang, K., Xiao, Y., Froyd, J. E., & Nite, S. B. (2020). Research and trends in STEM education: A systematic analysis of publicly funded projects. *International Journal of STEM Education*, 7(17).
<https://doi.org/10.1186/s40594-020-00213-8>
- Nite, S. B., Rice, D. C., & Tejani, R.* (June, 2020). Influences for Engineering Majors: Results of a Survey from a Major Research University. In *Proceedings of the American Society for Engineering Education Conference 2020*, Paper ID#31721 presented at ASEE's Virtual Conference, American Society for Engineering Education, Washington DC.
- Nite, S.B., & Bicer, A. (2019). Online mathematics teacher professional development. In Wachira, P. & Keengwe, S. (eds.) *Handbook of Research on Online Pedagogical Models for Mathematics Teacher Education* (pp. 203-215). Hershey, PA: IGI Global.
- Nite, S. B., Creel, B., Al-Marri, J., & Morgan, Jim. (2018). Design of an international bridge program for engineering calculus. In *Proceedings of the American Society for Engineering Education 2018*, Paper ID# 22790 presented at ASEE's 125th National Conference and Exposition. Salt Lake City, Utah: American Society for Engineering Education, Washington DC.
- Nite, S. B. (2017). The net of a cone. In Allen, G. D. & Ross, A. A. (Eds.). *Pedagogy and Content in Middle and High School Mathematics* (pp. 97-98). Rotterdam, The Netherlands: Sense Publishers.
- Allen, G. D. & Nite, S. B. (2017). When it comes to math, what exactly are we testing for? In Allen, G. D. & Ross, A. A. (Eds.). *Pedagogy and Content in Middle and High School Mathematics* (pp. 169-175). Rotterdam, The Netherlands: Sense Publishers.
- Nite, S. B. (2017). Using Polya's problem solving process in the mathematics classroom to prepare for TAKS. In Allen, G. D. & Ross, A. A. (Eds.). *Pedagogy and Content in Middle and High School Mathematics* (pp. 233-235). Rotterdam, The Netherlands: Sense Publishers.
- Nite, S. B. (2017). Energy math lesson for math classes. In Allen, G. D. & Ross, A. A. (Eds.). *Pedagogy and Content in Middle and High School Mathematics* (pp. 255-256). Rotterdam, The Netherlands: Sense Publishers.
- Nite, S. B., Capraro, R. M., Bicer, A., & Morgan, J. (2017). Studying mathematics in high school and college: Summer bridge program student beliefs. *2017 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 47th Annual Frontiers in Education (FIE) Conference, Indianapolis, IN: IEEE, New York, NY.
- Nite, S. B., Allen, G. D., Bicer, A., Morgan, J., & Barroso, L. R. (2017). College freshman beliefs about studying and learning mathematics: Results from a summer engineering calculus bridge program. In *Proceedings of the American Society for Engineering Education 2017*, Paper ID# 20320 presented at ASEE's 124th National Conference and Exposition. Columbus, OH: American Society for Engineering Education, Washington DC.
- Bicer, A., Nite, S. B., Capraro, R. M., Barroso, L. R., Capraro, M. M., & Li, Y. (2017). Moving from STEM to STEAM: The effect of informal STEM learning on students' creativity and problem solving skills with 3D

- printing. *2017 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 47th Annual Frontiers in Education (FIE) Conference, Indianapolis, IN: IEEE, New York, NY.
- Creel, B., Nite, S. B., Shafik, Z., & Mari, S. (2017). Inspiring interest in STEM education among Qatar's youth. In *Proceedings of the American Society for Engineering Education 2016*, Paper ID# 20731 presented at *2017 ASEE International Forum*, 124th National Conference and Exposition. Columbus, Ohio: American Society for Engineering Education, Washington DC.
- Capraro, R. M., Barroso, L. R., Nite, S., Rice, D., Lincoln, Y. S., Young, J., & Young, J. (2017). Developing a useful and integrative STEM disciplinary language. *International Journal of Education in Mathematics, Science and Technology*, 6(1), 1-11. DOI: 10.18404/ijemst.31232
- Nite, S. B., Capraro, M. M., Bicer, A., & Capraro, R. M. (2017). Explicating the characteristics of STEM teaching and learning: A meta-synthesis. *Journal of STEM Teacher Education*, 52(1), 31-53.
- Barroso, L. R., Bicer, A., Capraro, M. M., Capraro, R. M., Foran, A., Grant, M., Lincoln, Y. S., Nite, S. B., Oner, A. T., & Rice, D. (ABC order) (2017). Run! Spot. Run! - Vocabulary development and the evolution of STEM disciplinary language for secondary teachers. *Zentralblatt für Didaktik der Mathematik (ZDM)*, 49(2), 187-201.
- Barroso, L. R., Nite, S. B., Morgan, J. R., Bicer, A., Capraro, R. M., & Capraro, M. M. (2016). Using the engineering design process as the structure for project-based learning: An informal STEM activity on bridge-building. *Proceedings of 2016 IEEE Integrated STEM Education Conference (ISEC)*, Princeton, NJ, 249-256. doi: 10.1109/ISECon.2016.7457542
- Bicer, A., Nite, S. B., Capraro, R. M., Barroso, L. R., Capraro, M. M., & Froyd, J. (2016). Informal STEM Camp Influences on Engineering Confidence. *2016 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 46th Annual Frontiers in Education Conference: The Crossroads of Engineering and Business. Erie, PA.
- Capraro, R. M., Capraro, M. M., Nite, S. B., Barroso, L. R., & Brooks, C. (2016). Impact for Female Students of an Integrated STEM PBL Summer Curriculum on Content Knowledge Mastery and Post-Secondary Matriculation. *2016 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 46th Annual Frontiers in Education Conference: The Crossroads of Engineering and Business. Erie, PA..
- Bicer, A., Nite, S. B., Capraro, M. M., & Capraro, R. M. (2016). Assessment techniques in mathematics: A literature review. In R. V. Nata (Ed.), *Progress in Education Volume 39* (270-288). Hauppauge, NY: Nova Science Publishers, Inc.
- Bicer, A., & Nite, S. B. (2016). Egg drop parachute PBL. In M. M. Capraro, J. G. Whitfield, M. J. Etchells, & R. M. Capraro (Eds.), *A Companion to Interdisciplinary STEM Project-Based Learning: For Teachers by Teachers* (2nd edition) (pp. 47-52). Rotterdam, The Netherlands: Sense.
- Burkhead, M. & Nite, S. B. (2016). Transforming teacher technology use: Results from summer institute training. In P. Bogacki. *Electronic Proceedings of the 28th International Conference on Technology in Collegiate Mathematics*. Norfolk, VA: Pearson.
- Nite, S. B., Allen, G. D., Bicer, A., & Morgan, J. (2016). Student engagement in a summer bridge program for engineering calculus success. *Electronic Proceedings of the 2016 Hawaii University International Conferences Science, Technology Engineering, Art, Math & Education Conference*. Honolulu, HI: Hawaii University International Conferences.
- Nite, S. B., Allen, G. D., Capraro, R. M., Bicer, A., & Morgan, J. (2016). Supporting engineering education through calculus success. In S. T. Smith, Y. Y. Lim, A. Bahadori, N. Lake, R. V. Padilla, A. Rose, & K. Doust. *Proceedings of the 27th Annual Conference of the Australasian Association for Engineering Education*. Australasian Association for Engineering Education Conference: The Changing Role of the Engineering Educator for Developing the future Engineer. Coffs Harbour, Australia: Southern Cross University, Lismore, NSW 2480, Australia.
- Nite, S. B., Allen, G. D., Morgan, J., Bicer, A., & Capraro, R. M. (2016). Engineering calculus bridge program success: Comparing variation results. In *Proceedings of the American Society for Engineering Education 2016*, Paper ID# 16610 presented at ASEE's 123rd National Conference and Exposition. New Orleans, LA: American Society for Engineering Education, Washington DC.
- Nite, S. B., Houlahan, M., Tacka, P., & Moreno, P. (2016). Improving music dictation skills for music teachers: Effects of Kodály Methodology. *Electronic Proceedings of the 2016 Hawaii University International Conferences Science, Technology Engineering, Art, Math & Education Conference*. Honolulu, HI: Hawaii University International Conferences.
- Öner, A. T., Nite, S. B., Capraro, R. M., & Capraro, M. M. (2016). From STEM to STEAM: Students' beliefs about the use of their creativity. *The STEAM Journal*, 2(2), Article 6. DOI: 10.5642/steam.20160202.06

- Boedeker, P., Capraro, R. M., Capraro, M. M., & Nite, S. B. (2015). Women in STEM: The Impact of STEM PBL Implementation on Performance, Attrition, and Course Choice of Women. *2015 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 45th Annual Frontiers in Education Conference. El Paso, TX (952-959).
- Capraro, M. M., Nite, S. B., Kopparla, M., Capraro, R. M., Morgan, J. & Barroso, L. (2015). Appropriate technology in STEM education: Using a rubric to assess iPad apps. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015* (pp. 1502-1508). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Houlahan, M., Nite, S. B., Tacka, P., & Moreno, P. (2015). The effect of a learning and teaching model on the melodic dictation skills of K-12 music teachers. In L. G. Chova, A. L. Martínez, & I. C. Torres. *Proceedings of EDULEARN15 Conference*. Paper presented at 7th International Conference on Education and New Learning Technologies, Barcelona, Spain (6508-6514). IATED Academy.
- Morgan J, Capraro R.M., Capraro M.M., Nite S.B. (2015) Increasing the STEM pipeline: Impact of a multi-faceted STEM organization, QScience Proceedings (World Congress on Engineering Education 2014) 2015:23 <http://dx.doi.org/10.5339/qproc.2015.wcee2014.23>
- Morgan, J., Nite, S. B., Allen, G. D., Capraro, M. M., Capraro, R. M., & Pilant, M. (2015). Improving engineering calculus success through a summer program. In C. A. Shoniregun & G. A. Akmayeva. *IICE-2015 Proceedings*. Paper presented at Ireland International Conference on Education, Dublin, Ireland (298-301). Southernhay, Basildon Essex, SS14 1EB, UK: Infonomics Society.
- Nite, S. B., Morgan, J., Allen, G. D., Capraro, R. M., & Capraro, M. M. (2015). Effective technology for a calculus bridge program: Bringing education home. In A. Oo, A. Patel, T. Hilditch, & S. Chandran. *Proceedings of the 26th Annual Conference of the Australasian Association for Engineering Education*. Australasian Association for Engineering Education Conference: Blended Design and Project Based Learning: a future for Engineering Education, Geelong, Australia: School of Engineering, Deakin University, Victoria, Australia.
- Nite, S. B., Houlahan, M., Tacka, P., & Moreno, P. (2015). The effect of Kodály training on music teachers' sight singing skills. *Literacy Information and Computer Education Journal*, 6(3), 2013-2019.
- Nite, S. B., Morgan, J., Allen, G. D., Capraro, R. M., Capraro, M. M., & Pilant, M. (2015). A bridge to engineering: A personalized precalculus (bridge) program. *2015 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 45th Annual Frontiers in Education Conference: Launching a New Vision in Engineering Education. El Paso, TX (2053-2058).
- Nite, S., Bicer, A., Reeves, L.*, Barroso, L. & Capraro, M. (2015). Online professional development: Challenges of observation of secondary classroom simulation. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015* (pp. 358-364). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Nite, S. B., Houlahan, M., Tacka, P., & Moreno, P. (2015). Improving music teachers' musicianship skills. In C. A. Shoniregun & G. A. Akmayeva. *IICE-2015 Proceedings*. Paper presented at Ireland International Conference on Education, Dublin, Ireland (207-211). Dublin: Infonomics Society.
- Tacka, P., Houlahan, M., Nite, S. B., & Moreno, P. (2015). Pedagogical effects of music professional development: Writing musical lesson plans. In L. G. Chova, A. L. Martínez, & I. C. Torres. *Proceedings of ICERI 2015 Conference*. Paper presented at 8th International Conference of Education, Research, and Innovation, Seville, Spain (4434-4442). IATED Academy.
- Capraro, M. M., & Nite, S. B. (2014). STEM integration in mathematics standards. *Middle Grades Research Journal*, 9(3), pp. 1-10.
- Nite, S. B., Morgan, J., Capraro, R. M., Allen, G. D., & Capraro, M. M. (2014). Improving success in engineering calculus: Design of a bridge program. In A. Bainbridge-Smith, Z. Qi, & G. Gupta. *Proceedings of the 25th Annual Conference of the Australasian Association for Engineering Education*. Australasian Association for Engineering Education Conference: Engineering the Knowledge Economy: Collaboration, Engagement and Employability, Wellington, New Zealand: School of Engineering and Advanced Technology, Massey University.
- Capraro, M. M., Capraro, R. M., Nite, S., Morgan, J. R., & Peterson, C. A. (2014). Does inclusion of the arts in STEM project-based learning increase motivation for learning for urban students in informal settings? *Proceedings of the International Conference on Urban Education*. Paper presented at International Conference on Urban Education: Building and Sustaining Global Partnerships for Learning and Development, Montego Bay, Jamaica (204-208). Charlotte, NC: The Urban Education Collaborative.

- Nite, S., Capraro, M. M., Morgan, J. R., Peterson, C. A., & Capraro, R. M. (2014). Pathways to Engineering: Mathematics as a Mediator of Engineering Success. *2014 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 44th Annual Frontiers in Education Conference: Opening Doors to Innovation and Internationalization in Engineering Education. Madrid, Spain (2160-2164).
- Capraro, M. M., Capraro, R. M., Morgan, J. R., Nite, S., & Peterson, C. A. (2014). Science, Technology, Engineering and Mathematics (STEM) Education: A Longitudinal Examination of Secondary School Intervention. *2014 IEEE Frontiers in Education Conference Proceedings*, Paper presented at the 44th Annual Frontiers in Education Conference: Opening Doors to Innovation and Internationalization in Engineering Education. Madrid, Spain (1382-1388).
- Nite, S. B. & Allen, G. D. (2014). Increasing Calculus II success with a bridging program. *Electronic Proceedings of the 2014 Hawaii Education and S.T.E.M. Conference*. Honolulu, HI: Hawaii University International Conferences.
- Capraro, R. M., Capraro, M. M., Nite, S. B., & Morgan, J. (2014). STEM project based learning: A workforce enhancing model. *Tex's CEO Magazine, May/June, 16 -17*.
- Nite, S. B. & Allen, G. D. (2014). Student characteristics that help predict success in calculus: Results from a summer precalculus program. In P. Bogacki (Ed.). *Electronic Proceedings of the 26th International Conference on Technology in Collegiate Mathematics*. Norfolk, VA: Pearson.
- Nite, S. B. (2014). Mathematical misconceptions. In C. R. Reynolds, K. J. Vannest, & E. Fletcher-Janzen (Eds.), *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals* (4th ed., pp. 1622-1623). Hoboken, NJ: John Wiley and Sons.
- Allen, G. D., Nite, S. B., Pilant, M. S., & Whitfield, J. (2013). Using a math placement exam to develop a personalized precalculus program. In P. Bogacki (Ed.). *Electronic Proceedings of the 25th International Conference on Technology in Collegiate Mathematics*. Norfolk, VA: Pearson.
- Nite, S. B. (2013). Energy Math Lessons for Math Classes. *Focus on Content and Pedagogy*, 5(4).
- Nite, S. B. (2013). Book Review of "Math for the Frightened: Facing Scary Symbols and Everything Else that Freaks You Out About Mathematics." *The Mathematics Teacher*, 106(9). 717.
- Froyd, J. E., Hurtado, D., Lagoudas, M. Z., Nite, S. B., Hobson, M., Hodge, J., & Monroe, J. (2012, October). *Increasing access to engineering*. Frontiers in Education 42nd Annual Conference Proceedings, pp. 1-6. Seattle, WA.
- Nite, S. B., & Nite, S. G. (2012). Test Bank to accompany *Modeling with Mathematics: A Bridge to Algebra 2*, 2nd edition and *Modeling with Mathematics: A Fourth Year Course*. New York, NY: W. H. Freeman and Company.
- Nite, S. B., Allen, G. D., Sledge, S., & Whitfield, J. (2012). Retention through remediation: Enhancing Calculus I success. In P. Bogacki (Ed.). *Electronic Proceedings of the 24th International Conference on Technology in Collegiate Mathematics*. Norfolk, VA: Pearson.
- Nite, S. B. Bridging secondary mathematics to post-secondary calculus: A summer bridge program. Unpublished dissertation. Texas A&M University, College Station. (2012).
- Nite, S. B. (2011). TAMU AP Institutes: 2011-2012. *Focus on Content and Pedagogy*, 3(6).
- Nite, S. B. (2010). The net of a cone. *Focus on Content and Pedagogy*, 2(4).
- Nite, S. B. (2009). Using Polya's problem solving process in the mathematics classroom to prepare for high stakes testing. *Focus on Content and Pedagogy*, 1(3).
- Nite, S. B. (2009). Mathematics instructional coaching – What does it mean? *Focus on Content and Pedagogy*, 1(7).
- Lege, J., Bell, R., Davis, M., & Nite, S. (2001). *Mathematical models with applications*. New York, NY: W. H. Freeman and Company.

Online Professional Development Series

- Nite, S. B. (2017). Learner centered teaching. *The Secondary Mathematics Classroom: Online Professional Development Series*. College Station, Tx.
- Nite, S. B. (2017). Secondary mathematics classroom discourse. *The Secondary Mathematics Classroom: Online Professional Development Series*. College Station, Tx.
- Nite, S. B. (2017). Secondary classroom grouping strategies. *The Secondary Mathematics Classroom: Online Professional Development Series*. College Station, Tx.
- Nite, S. B. (2017). Motivating secondary mathematics students. *The Secondary Mathematics Classroom: Online Professional Development Series*. College Station, Tx.

- Nite, S. B. (2016). Effective questioning strategies. *Online Professional Development Series*. College Station, TX.
- Currens, K. A.* & Nite, S. B. (2016). Proportionality concepts for middle school. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Currens, K. A.* (2016). Connections between representations of linear functions. *Online Professional Development Series*. College Station, TX.
- Nite, S. B. (2014). Introduction to STEM project-based learning. *Online Professional Development Series*. College Station, TX.
- Nite, S. B. (2014). Implementing a PBL: Benny's bee business. *Online Professional Development Series*. College Station, TX.
- Nite, S. B. (2014). Writing a PBL part 1: What TEKS should I cover? *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Writing a PBL part 2: Developing the ill-defined task. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Writing a PBL part 3: Engage, explore, explain. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Writing a PBL part 4: Refinement and differentiation. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Writing a PBL part 5: Formative and summative assessment. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Professional learning communities. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). Designing and applying rubrics. *Online Professional Development Series*. College Station, TX.
- Nite, S. B., & Nite, S. G. (2014). The student centered classroom. *Online Professional Development Series*. College Station, TX.

CONFERENCES

National/International

- Bicer, A. & Nite, S. B. (2019, June). Dilutions of poisons as a toll for understanding proportions more deeply. Presented at *National IBL Conference: Inquiry-based Learning and Teaching in Mathematics (IBL SIGMAA)*. Denver, CO.
- Currens, K. A.*, & Nite, S. B. (2019, June). Catapult student understanding of parabolic functions. Presented at *National IBL Conference: Inquiry-based Learning and Teaching in Mathematics (IBL SIGMAA)*. Denver, CO.
- Bicer, A., & Nite, S. B. (2019, April). Effects of professional development series on math teachers' self-efficacy. Paper accepted to the *2019 NCTM Research Conference*, San Diego, CA.
- Nite, S. B., & Currens, K. A.* (2018, May). Exploring periodic functions created by sound waves. Presented at the *National IBL Conference: Inquiry-based learning and teaching in mathematics (IBL SIGMAA)*. Austin, TX.
- Nite, S. B., & Allen, G. D. (2018, April). STEM PBL in mathematics: Improving teacher knowledge and interest. Paper presented at *NCTM Research Conference 2018*. Washington, DC.
- Nite, S. B., Houlahan, M., Tacka, P., & Moreno, P. (2018, March). The Kodály Concept impact on teacher musicianship and pedagogical skills. Poster presented at *Organization of American Kodály Educators Conference*: Oklahoma City, OK. DOI: 10.13140/RG.2.2.31837.72168
- Nite, S. B., & Sallean, M.* (2018, February). Bridge programs for engineering calculus success. Poster Presented at *Research in Undergraduate Mathematics Education Conference (RUME SIGMAA)*: San Diego, CA.
- Nite, S. B., Capraro, R. M., Bicer, A., & Morgan, J. (2017, October). Studying mathematics in high school and college: Summer bridge program student beliefs. Paper presented at the *2017 IEEE Frontiers in Education Conference: The Crossroads of Engineering and Business*. Indianapolis, IN.
- Bicer, A., Nite, S. B., Capraro, R. M., Capraro, M. M., & Barroso, L. R. (2017, October). Moving from STEM to STEAM: The effects of information STEM learning on students' creativity and problem solving skills with 3D printing. Paper presented at the *2017 IEEE Frontiers in Education Conference: The Crossroads of Engineering and Business*. Indianapolis, IN.

- Creel, B., Nite, S. B., Shafik, Z., & Mari, S. (2017, June). Inspiring interest in STEM education among Qatar's youth. Paper and poster presented at *2017 American Society for Engineering Education Annual Conference & Exposition*, Columbus, Ohio.
- Nite, S. B., Allen, G. D., Bicer, A., Morgan, J., & Barroso, L. R. (2017, June). College Freshman Beliefs About Studying and Learning Mathematics: Results from a Summer Engineering Calculus Bridge Program. Paper presented at *2017 American Society for Engineering Education Annual Conference & Exposition*, Columbus, Ohio.
- Bicer, A., Nite, S. B., Reeves, L.*, Capraro, R. M., & Morgan, J. R. (2017, April). Mathematics teacher collaboration with online technology integration. Paper presented at *2017 NCTM Research Conference*. San Antonio, Texas.
- Bicer, A., Capraro, R. M., Capraro, M. M., & Nite, S. B. (2017, April). Improving educational opportunities for underrepresented students: The educational impact of T-STEM academies. Paper presented at the *2017 AERA Annual Meeting, Knowledge to Action: Achieving the Promise of Equal Education Opportunity*. San Antonio, Texas.
- Bicer, A., Ozfidan, B., Capraro, M. M., Capraro, R. M., & Nite, S. B. (2017, April). A meta-analysis: The effects of writing interventions on students' mathematics success. Paper presented at the *2017 AERA Annual Meeting, Knowledge to Action: Achieving the Promise of Equal Education Opportunity*. San Antonio, Texas.
- Nite, S. B., Allen, G. D., Bicer, A., & Capraro, R. M. (2017, April). Strengthening precalculus skills in a summer program for engineering students. Paper presented at *2017 AERA Annual Meeting, Knowledge to Action: Achieving the Promise of Equal Education Opportunity*. San Antonio, Texas.
- Nite, S. B., Allen, G. D., Bicer, A., & Capraro, R. M. (2017, April). Precalculus program for prospective engineering students. Paper presented at the *2017 NCTM Research Conference*. San Antonio, Texas.
- Barroso, L. R., Nite, S. B., Morgan, J. R., Bicer, A., Capraro, R. M., & Capraro, M. M. (2016, March). Using the engineering design process as the structure for project-based learning: An informal STEM activity on bridge-building. Paper presented at *2016 IEEE Integrated STEM Education Conference (ISEC)*, Princeton, NJ, 249-256.
- Nite, S. B., Houlahan, M., Tacka, P., & Moreno, P. (2017, March). Musicianship and Pedagogical Skills of Music Teachers: The Impact of a Model of Learning and Instruction shaped by Kodály Concept. Paper poster presented at the *Organization of American Kodály Educators 2017 National Conference*, Philadelphia, PA.
- Nite, S. B., Allen, G. D., Capraro, R. M., Bicer, A., & Morgan, J. (2016, December). Supporting engineering education through calculus success. Paper presented at *27th Australasian Association for Engineering Education Conference*. Coffs Harbour, Australia.
- Bicer, A., Nite, S. B., Capraro, R. M., Barroso, L. R., Capraro, M. M., & Froyd, J. (2016, October). Informal STEM Camp Influences on Engineering Confidence. Paper presented at the *2016 IEEE Frontiers in Education Conference: The Crossroads of Engineering and Business*. Erie, PA.
- Capraro, R. M., Capraro, M. M., Nite, S. B., Barroso, L. R., & Brooks, C. (2016, October). Impact for Female Students of an Integrated STEM PBL Summer Curriculum on Content Knowledge Mastery and Post-Secondary Matriculation. Paper presented at the *46th Annual Frontiers in Education Conference (FIE)*, 2016. Erie, PA.
- Nite, S. B., Kirby, K., & Bicer, A. (2016, October). Learning how to manage money: A financial literacy project for middle school students. Presented at *Annual Conference for Middle School Education*. Austin, Tx.
- Nite, S. B., Allen, G. D., Morgan, J., Bicer, A., & Capraro, R. M. (2016, June). Engineering calculus bridge program success: Comparing variation results. Paper presented at *American Society for Engineering Education 2016*, Paper ID# 16610, ASEE's 123rd National Conference and Exposition. New Orleans, LA.
- Öner, A. T., Nite, S., Capraro, M. M., Capraro, R. M., & Barroso, L. (2016, May). *Examination of students' creativity in a STEM camp: Exploring STEAM*. International Conference on Education in Mathematics, Science and Technology (ICEMST), Bodrum, Turkey.
- Nite, S. B., Brooks, C.*, Rice, D.*, & Bicer, A. (2016, February). Diversity matters in informal STEM experiences. Poster presented at *Climate Matters Conference: A Dialogue on Climate, Inclusion and Respect*. Texas A&M University, College Station, Tx
- Allen, G. D., Goldsby, D., & Nite, S. B. (2016, March). Testing unfairness – mathematics and simulations. Presented at the *28th Annual International Conference on Technology in Collegiate Mathematics*.
- Boedeker, P., Capraro, R. M., Capraro, M. M., & Nite, S. B. (2015, October). Women in STEM: The Impact of STEM PBL Implementation on Performance, Attrition, and Course Choice of Women. Paper presented at the *45th Annual Frontiers in Education Conference*. El Paso, TX.

- Nite, S. B., Morgan, J., Allen, G. D., Capraro, R. M., Capraro, M. M., & Pilant, M. (2015, October). A bridge to engineering: A personalized precalculus (bridge) program. Paper presented at the 45th Annual Frontiers in Education Conference: Launching a New Vision in Engineering Education. El Paso, TX.
- Nite, S. B., Morgan, J., Allen, G. D., Capraro, R. M., & Capraro, M. M. (2015, December). Effective technology for a calculus bridge program: Bringing education home. Paper presented at the 26th Annual Conference of the Australasian Association for Engineering Education. Australasian Association for Engineering Education Conference: Blended Design and Project Based Learning: a future for Engineering Education, Geelong, Australia.
- Nite, S. B., Morgan, J., Capraro, R. M., Allen, G. D., & Capraro, M. M. (2014, December). Improving success in engineering calculus: Design of a bridge program. Paper presented at the Australasian Association for Engineering Education Conference: Engineering the Knowledge Economy: Collaboration, Engagement and Employability, Wellington, New Zealand.
- Nite, S., Capraro, M. M., Morgan, J. R., Peterson, C. A., & Capraro, R. M. (2014, October). Pathways to Engineering: Mathematics as a Mediator of Engineering Success. Paper presented at the 44th Annual Frontiers in Education Conference: Opening Doors to Innovation and Internationalization in Engineering Education. Madrid, Spain.
- Capraro, M. M., Capraro, R. M., Morgan, J. R., Nite, S., & Peterson, C. A. (2014, October). Science, Technology, Engineering and Mathematics (STEM) Education: A Longitudinal Examination of Secondary School Intervention. Paper presented at the 44th Annual Frontiers in Education Conference: Opening Doors to Innovation and Internationalization in Engineering Education. Madrid, Spain.
- Allen, G. D., Whitfield, J. G., Pilant, M., & Nite, S. B. (2014, March). Retention through remediation: Enhancing Calculus I success. Poster presentation at 20th Annual Grantees Meeting for NSF's Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP). Washington, D. C.
- Allen, D., Nite, S., Whitfield, J. (March 2014), *Improving Student Success in Foundational Courses in Math, Science, Technology, Engineering, & Math. Talent Expansion Program (STEP) Annual Grantees Meeting*, Washington D.C.
- Nite, S. B. (2011, November). Predicting and improving success in engineering calculus, *School Science and Mathematics Association Convention*: Colorado Springs, Colorado.
- October 2011. Conference Board of the Mathematical Sciences Forum on *Teaching Teachers in the Era of the Common Core*, Reston, VA.
- Heyen, K., Hollowell, E., Kever, E., Mullins, D., Murphy, K., Taylor, D., Wayne, S., Easterling, J., Nite, S., Capraro, M. M., & Capraro, R. (2011, August). Problem posing around the Czech Republic. Poster presentation at the International Symposium on Elementary Mathematics Teaching. Charles University: Prague, Czech Republic.
- Nite, S. B. (2011, August). Teaching through problem solving. Poster presentation at the International Symposium on Elementary Mathematics Teaching. Charles University: Prague, Czech Republic.
- March 2011. National Council of Teachers of Mathematics (NCTM) Conference, Indianapolis, Indiana.
- October 2010. Conference Board of the Mathematical Sciences Forum on *Content-Based Professional Development for Teachers of Mathematics*, Reston, VA.
- Nite, S. B. (2009). The legacy of Charlie Brown. Organization of Educational Historians: Chicago, Illinois.
- October 2009. Conference Board of the Mathematical Sciences Forum on the *Content and Assessment of School Mathematics*, Reston, VA.
- October 2008. Conference Board of the Mathematical Sciences *National Math Panel Forum*, Washington, D.C.
- Nite, S. B. (2003). The Real MMA Classroom. National Council of Teachers of Mathematics, San Antonio, TX.
- * Indicates student researchers under my supervision**

Regional

- Nite, S. B. & Lee, J. H.* (2021). Secondary student influences for interest in STEM careers. Presented at 44th Southwest Educational Research Association Conference. Online.
- Nite, S. B. & Holloway, J.* (February, 2020). Secondary Mathematics Teacher Self-Efficacy: Professional Development Pre- and Post-Survey Findings. Presented at the *Southwest Educational Research Association Conference 2020*. Arlington, Texas.
- Nite, S. B. & Rice, D. C. (February, 2020). Influences on STEM Majors in One University: Formal Education Influences. Presented at the *Southwest Educational research Association Conference 2020*. Arlington, Texas.

- Nite, S. B. & Morgan, J. (2019, February). Desire for change: Results from a mathematics teacher professional development program. Paper accepted for the 42nd Annual Meeting of the Southwest Educational Research Association: San Antonio, TX.
- Nite, S. B., Sallean, M.*, Warren, V.*, & Rice, D. C.* (2018, February). Developing spatial visualization in mathematics teachers. Paper presented at 41st Annual Meeting of Southwest Educational Research Association: New Orleans, LA.
- Bicer, A., Nite, S. B., Capraro, M. M., Barroso, L. R., Suarez, M., Kwon, H., & Rice, D. C. (2017, February). The effects of STEM summer camp on student interest in STEM careers. Paper presented at Southwestern Educational Research Association Conference, San Antonio, TX.
- Bicer, A., Perihan, C., Nite, S. B., Capraro, R. M., Currens, K. A., Suarez, M., & Lee, Y. (2017, February). The effects of cognitive behavior therapy on students' mathematics anxiety. Paper presented at Southwestern Educational Research Association Conference, San Antonio, TX.
- Nite, S. B., Bicer, A., Salazar, K.*, Lee, Y.*, Barroso, L. R., & Capraro, R. M. (2017, February). The effect of STEM project-based learning on mathematics teacher instruction. Paper presented at Southwestern Educational Research Association Conference, San Antonio, TX.
- Nite, S. B., Bicer, A., Currens, K. A.*, Salazar, K.*, & Capraro, M. M. (2017, February). STEM summer camp effect on spatial drawing ability. Paper presented at Southwestern Educational Research Association Conference, San Antonio, TX.
- Nite, S. B., Bicer, A., Currens, K. A.*, Lee, Y.*, Bevan, D., & Barroso, L. R. (2017, February). Summer precalculus bridge program: Use of electronic resources. Paper presented at Southwestern Educational Research Association Conference, San Antonio, TX.
- Oner, A. T., Nite, S., Capraro, M. M., & Capraro, R. M. (2015, February). *The effect of 3D design on students' belief about "A" of STEAM*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.
- Nite, S. B. (2014, November). *Matrix operations in gas and oil operations*. Presented at the National Council of Teachers of Mathematics (NCTM) Regional, Houston, Texas.
- Peterson, C. A., Oner, A. T., Nite, S. B., Bicer, A., Capraro, R. M., Capraro, M. M., Morgan, J. R., & Sahin, A. (2013, September). *Aggie-STEM: Improving Student Outcomes with Professional Development that Incorporates STEM-Based Project-Based Learning and Professional Learning Communities*. Paper presented at the regional meeting of the MSP Program, Washington D.C.
- Nite, S. B. (2012, October). *Introducing the logistic function*. Presented at the National Council of Teachers of Mathematics Regional Conference, Dallas, Texas.
- Younes, R., Nite, S. B., & Rangel, A. (2012, February). *The effects of sustained professional development in STEM project based learning: Results from one Texas school district*. Paper presented at Southwest Educational Research Association Conference, New Orleans, LA.
- Nite, S. B. (2011, February). *Engineering calculus success at Texas A&M University*. Paper presented at Southwest Education Research Association, San Antonio, Texas.
- Nite, S. B. (2010, February). *An introduction to canonical correlation analysis*. Paper presented at Southwest Educational Research Association, New Orleans, Louisiana.

*** Indicates student researchers under my supervision**

State

- Nite, S. B. (2019, April). Why Consider Inquiry, Problem-Based Learning, and Project-Based Learning? Presented at Wyoming Articulation and Northwest Math Meeting, Riverton, WY.
- Nite, S. B. (2016, February). *Function Transformations Geometrically*. Presented at Conference on the Teaching of Mathematics 6-12, Huntsville, TX.
- Nite, S. B. (2015, February). *Using sine curves to locate oil pockets for drilling*. Presented at the Conference on the Teaching of Mathematics 6-12, Huntsville, TX.
- Lopez, R., Nite, S. B., & Hill, K., (2015, January). *Facilitating inquiry-based learning from theory to practice*. Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.
- Nite, S. B. (2014, July). *Matrix operations in gas and oil operations*. Presented at the Conference for the Advancement of Mathematics Teaching (CAMT), Fort Worth, Texas.
- Nite, S. B. & Whittern, S. (2014, July). *Where are the manatees?* Presented at the Conference for the Advancement of Mathematics Teaching (CAMT), Fort Worth, Texas.

- Nite, S. B. & Whittern, S. (2014, July). *Whose are these bones?* Presented at the Conference for the Advancement of Mathematics Teaching (CAMT), Fort Worth, Texas.
- Nite, S. B. (2014, April). *Videos, discussions, and online practice to support online mathematics learning.* Presented at the Texas Distance Learning Association, Corpus Christi, Texas.
- Nite, S.B. (2014, February). *Modeling Oil Consumption and Production.* Presented at the Sam Houston State University Conference on Mathematics Teaching 6-12, Huntsville, Texas.
- Nite, S. B. & Peterson, C. A. (2014, February). *Benny's bee business: An interdisciplinary PBL Example.* Presented at the Texas STEM Conference, Dallas, Texas.
- Nite, S. B. (2013, July). *Quadratic function formula through finite differences.* Presented at the Conference for the Advancement of Mathematics Teaching: San Antonio, Texas.
- Lackey, D. J. & Nite, S. B. (2013, July). *The exponential function and calculator regression.* Presented at the Conference for the Advancement of Mathematics Teaching: San Antonio, Texas.
- Tung, K. & Nite, S. B. (2013, July). *Developing area formulas.* Presented at the Conference for the Advancement of Mathematics Teaching: San Antonio, Texas.
- Nite, S. B. (2013, February). *Using transformations to find a model for sinusoidal data.* Presented at the Sam Houston State University Conference on Mathematics Teaching 6-12. , Huntsville, Texas.
- Nite, S. B. (2012, July). *Introducing the logistic function.* Presented at the Conference for the Advancement of Mathematics Teaching: Houston, Texas.
- Nite, S. B. & Tung, K. (2012, July). *Polygon paper folding.* Presented at the Conference for the Advancement of Mathematics Teaching: Houston, Texas.
- June 2012. TCEA 2012 Summer Conference "Tots and Technology", Galveston, Texas.
- Nite, S. B. (2012, February). *Introducing the logistic function.* Presented at the Sam Houston State University Conference on Mathematics Teaching 6-12, Huntsville, Texas.
- May 2011. Texas Engineering Experiment Station STEP Projects Grant Conference, Dallas, Texas.
- July 2011. Conference for the Advancement of Mathematics Teaching (CAMT), Grapeland, Texas.
- June 2012. TCEA 2011 Summer Conference "Tots and Technology", Galveston, Texas.
- Nite, S. B. (2011, February). *Cognitive demand in precalculus.* Presented at the Sam Houston State University Conference on Mathematics Teaching 6-12, Huntsville, Texas.
- Nite, S. B. & Bleyer, C. (2011, February). *Advanced quantitative reasoning: A fourth year math course for Texas students.* Presented at the Texas Association of Supervisors of Mathematics, Austin, Texas.
- October 2010. Texas Engineering Experiment Station STEP Projects Grant Conference, Houston, Texas.
- July 2010. Conference for the Advancement of Mathematics Teaching, San Antonio, Texas.
- May 2010. Texas Engineering Experiment Station STEP Projects Grant Conference, Dallas, Texas.
- Nite, S. B. & Nite, S. G. (2009). *Using Polya's problem solving process for TAKS.* Presented at the Conference for the Advancement of Mathematics Teaching, Houston, Texas.
- Willey, V. & Nite, S. B. (2006). *Introduction to Vectors.* Conference for the Advancement of Mathematics Teaching, Houston, Texas.
- Nite, S. B. (2002). *Arithmetic to algebra: Similar processes.* Presented at the Conference for the Advancement of Mathematics Teaching, Dallas, Texas.
- Nite, S. B. (2002). *Mathematics and music: Geometric transformations.* Presented at the Conference for the Advancement of Mathematics Teaching, Dallas, Texas.
- Nite, S. B. (2000). *Mathematics and music.* Presented at the Conference for the Advancement of Mathematics Teaching, Houston, Texas.
- Nite, S. B. (1999). *Strategies for success in Algebra I.* Presented at the Conference for the Advancement of Mathematics Teaching, Dallas, Texas.
- Nite, S. B. (1998). *A sound approach to the keyboard.* Presented at the Texas Music Educators Association (TMEA) Convention, San Antonio, Texas.
- Yarborough, H. & Nite, S. B. (1998). *A discovery approach.* Presented at the Conference for the Advancement of Mathematics Teaching, San Antonio, Texas.
- Yarborough, H. & Nite, S. B. (1997). *A discovery approach.* Presented at the Conference for the Advancement of Mathematics Teaching, Houston, Texas.

Local

- Nite, S. B. (2019, April). Incorporating the Learning Actively Mentoring Program (LAMP) in the college mathematics classroom. Mathematics Department Teaching Seminars: Laramie, Wyoming
- Nite, S. B. (2011, March). Predicting and improving success in engineering calculus at Texas A&M University (Student Research Week): College Station, Texas.
- Nite, S. B. (2010). Teaching functions: Laying the foundation and building through precalculus. Texas A&M University (Student Research Week): College Station, Texas.
- Nite, S. B. (2010). An introduction to canonical correlation analysis. Gonzales, Capraro, Capraro, and Thompson Research Conference: College Station, Texas.

Manuscripts Pending

Invited Presentations/Workshops

- Nite, S. B. (2020, February). Mathematics education in the United States: Common Core and its implications. Presented at graduate mathematics education course, University of Wyoming, Laramie, Wyoming.
- Nite, S. B. (2018, July-August). Precalculus bridge program. *Pathways for Retention in Engineering Programmes: Precalculus Boot Camp (PREP 2018)*, 100-hour program. Texas A&M University at Qatar, Doha, Qatar.
- Nite, S. B. (2017, July-August). Precalculus concepts. *Pathways for Retention in Engineering Programmes: Precalculus Boot Camp*, 75-hour program. Texas A&M University at Qatar, Doha, Qatar.
- Nite, S. B. (2017, April). Using celebrity ages to explore linear parent functions. *Connecting Mathematical Practices Conference 2017*. Radford University, Radford, Virginia.
- Nite, S. B. (2016, July-August). Precalculus investigations. *Pathways for Retention in Engineering Programmes: Precalculus Boot Camp*, 55-hour program. Texas A&M University at Qatar, Doha, Qatar.
- Nite, S. B. (2016, June, July). STEM music: A PBL. *Aggie STEM Summer Camp 2016*, College Station, TX.
- Nite, S. B. (2016, March). *What Story Can We Tell?: Research Opportunities in Teacher Professional Development*. Presented at Technical Meeting of Teacher Quality Grants Program, Fort Worth, TX.
- Nite, S. B., Capraro, M. M., Barroso, L. R., & Hammond, T. (2016, January). *Overcoming the STEM divide: Transitioning women to post secondary STEM programs*. Workshop presented at 2016 Teacher Summit and PK-12 Leadership Forum: Women in STEM, College Station, TX.
- Nite, S. B. (2016, January). *Aggie STEM Grants Submitted Fall 2015*. Aggie STEM Retreat Spring 2016. Texas A&M University, College Station, Tx.
- Nite, S. B. (2016, January). *Aggie STEM Professional Development*. Aggie STEM Retreat Spring 2016. Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, November). *Preparing a Successful Vita*. Mathematics Education Graduate Student Meeting, Texas A&M University, College Station, Tx.
- Houlahan, M., Tacka, P., & Nite, S. B. (2015, November). *Realizing Kodály's Legacy in the American Classroom: Implications from Current Research*. Conference headliner presentation for the Eastern Division Conference of the Organization of American Kodály Educators, Lancaster, Pennsylvania.
- Reeves, L. & Nite, S. B. (2015, October). *Toothpick and macaroni pattern activities for elementary students*. Presented at the Greens Prairie Elementary School STEM Night, College Station, Tx.
- Wuensche, K., Nite, S. B., & Muller, R. (2015, June). Blackboard Collaborate Panel Discussion. Teaching with Technology Lecture Series, Instructional Technology Services, Texas A&M University, College Station, Tx.
- Capraro, R. M. & Nite, S. B. (2015, February). *Toothpick and catapult STEM activities for secondary students*. Presented at the Bellville ISD Science Night, Bellville, TX.
- Nite, S. B. (2015, January). *Teaching the readiness and supporting standards for STAAR Algebra 1*. Presented at graduate mathematics education course, Texas A&M University, College Station, TX.
- Nite, S. B., Capraro, M. M., Capraro, R. M., Bicer, A., Navruz, B. Metoyer, S., et al. (October, 2014). *Effective STEM teaching and learning: A meta synthesis and meta-analysis*. Presented at the NSTEM Collaborative Colloquium, Austin, TX.
- Nite, S. B., & Morgan, J. (2014, September). *Using Technology to Integrate Math and Science*. Houston Independent School District 2014 Secondary Science Curriculum Department Summit: Critical Thinking in Science, Houston, Tx.
- Nite, S. B. (2014, June). Panel on STEM Education and its Importance in our Society. Hugh O'Brian Youth Foundation Texas Gulf Coast Leadership Seminar. Galveston, Texas.

- Nite, S. B. (2014, March). Online Learning Environments. Texas Higher Education Coordinating Board Teacher Quality Grant Program Directors Meeting. Lost Pines, Texas.
- Nite, S. B. (2012, June). Problem Solving and SAT Mathematics. Aggie STEM Summer Math Camp. College Station, Texas.
- Nite, S. B. (2012, February). Resume building and interviewing for teachers. Texas State Teachers Association, Texas A&M University Student Chapter, College Station, Texas.
- Nite, S. B. (2012, February). Helpful hints for preparing an effective curriculum vitae. *Southwest Educational Research Association*: New Orleans, Louisiana.
- Whitfield, J. & Nite, S. B. (2012, January). Ideas to excite students about math. STEM Teacher Summit, College of Engineering and College of Science, Texas A&M University, College Station, Texas.
- Nite, S. B. (2011, June). Problem solving activities. Aggie STEM Summer Math Camp, College Station, Texas.
- Nite, S. B. (2009). Research in mathematics education. Gladewater Math Instructional Coaches Program: Gladewater, Texas.
- Nite, S. B. (2003). The Real MMA Classroom. Alief Mathematics Summit, Alief, Texas.
- Nite, S. B., Bertsch, K., & Miksch, R. (2001). Algebra I curriculum at Sweeny High School, Region VI Education Service Center, Huntsville, Texas.
- Nite, S. B. (2000). Mathematics and music. Clear Creek Math Models Consortium: League City, Texas.
- Nite, S. B. (1995). Career opportunities in mathematics. Math Counts: Sweeny, Texas.

Recent Teacher Professional Development

- Nite, S. B. (2020, March). Zoom Basics for Class Meetings and Lesson Recordings. Allen Academy, Bryan, Tx.
- Nite, S. B. (2020, March). Using Google Classroom and Zoom to Facilitate Student Collaboration. Allen Academy, Bryan, Tx.
- Nite, S. B. (2019, October). Using Polya’s Four-Step Problem Solving Process for Grades 3-8 Mathematics STAAR. Gause Independent School District.
- Nite, S. B. (2019, September). Grant Writing for NSHSS AP and STEAM Grants. Allen Academy, Bryan, Tx.
- Nite, S. B. (2019, August). Using Turning Point Exam View and WebAssign for Online Assignments. Allen Academy, Bryan, Tx.
- Nite, S. B. (2019, August). Distance versus time graphs with the CBR. Allen Academy, Bryan, Tx.
- Nite, S. B. (2019, July). Honors high school mathematics: Laying calculus foundations, *AP Institutes in Mathematics and Computer Science*, Texas A&M University, College Station, Tx.
- Nite, S. B. (2017, October). Data collection activities for linear functions. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, October). Good viewing windows for functions. *Supporting Mathematics in STEM Education – Algebra 2*, College Station, Tx.
- Nite, S. B. (2017, September). Using technology to transformations of functions. *Supporting Mathematics in STEM Education – Dual Credit*, College Station, Tx.
- Nite, S. B. (2017, September). Finite differences and linear functions. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, September). Using cylinders to explore rational functions. *Supporting Mathematics in STEM Education – Dual Credit*, College Station, Tx.
- Nite, S. B. (2017, September). Exploring slope as rate of change with distance versus time graphs. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, September). Teaching students to study mathematics. *Supporting Mathematics in STEM Education – Dual Credit*, College Station, Tx.
- Nite, S. B. (2017, September). Linear functions through saving and spending models. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, July). Calculator viewing windows for real life functions. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, July). Characteristics of college-ready students. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, July). Transformations of piece functions by graphing. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.

- Nite, S. B. (2017, July). Revenue and profit applications of quadratic functions. *Supporting Mathematics in STEM Education – Algebra 2*, College Station, Tx.
- Nite, S. B. (2017, July). Recursive and explicit representations of linear functions. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, July). Exponential function transformations with the CBL. *Supporting Mathematics in STEM Education – Algebra 2*, College Station, Tx.
- Nite, S. B. (2017, July). CBR activities to deepen conceptual learning in algebra. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2017, July). CBR activities to reinforce linear and quadratic function concepts. *Supporting Mathematics in STEM Education – Algebra 2*, College Station, Tx.
- Nite, S. B. (2017, July). Evaluating project-based learning lessons. *Supporting Mathematics in STEM Education – Algebra 1-2*, College Station, Tx.
- Nite, S. B. (2017, July). Introduction to habits of mind in mathematics. *Supporting Mathematics in STEM Education – Algebra 1-2*, College Station, Tx.
- Nite, S. B. (2017, June). Transformations of exponential decay functions from CBL data collections. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, June). Using CBL and probes to explore cubic functions and transformations of sinusoidal curves. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, June). Using CBR technology for deeper understanding of distance vs time graphs. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, June). Observing project-based learning. *Supporting Mathematics in STEM Education – Dual Credit Mathematics*, College Station, Tx.
- Nite, S. B. (2017, February). Exploring the linear parent function with celebrity ages. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, Tx.
- Nite, S. B. (2016, November). Analyzing student work in mathematics. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX.
- Nite, S. B. (2016, October). Hay trailer proportions. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX..
- Nite, S. B. (2016, September). Planning to achieve mathematical challenges. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX.
- Nite, S. B. (2016, September). Exploring ratios and proportions with paint mixing. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX.
- Nite, S. B. (2016, July). Rate of change explorations through cycling activities. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX.
- Nite, S. B. (2016, July). Linear function focus in Fahrenheit-Celsius conversion. *Supporting Mathematics in STEM Education – Algebra 2*, College Station, TX.
- Nite, S. B. (2016, July). Using technology to examine distance versus time graphs. *Supporting Mathematics in STEM Education – Algebra 1*, College Station, TX.
- Nite, S. B. (2016, July). Observation of teaching strategies in the UAV PBL classroom. *Advanced STEM Content Teacher Collaboration*, College Station, TX.
- Barroso, L. R. & Nite, S. B. (2016, July). Advanced course student centered classrooms. *Advanced STEM Content Teacher Collaboration*, College Station, TX.
- Burkhead, M. A., & Nite, S. B. (2016, July). Using GeoGebra to enhance student learning in algebra and geometry. Invited presentation for *Pre-AP High School Mathematics, Advanced Placement Institutes*, College of Science, Texas A&M University, College Station, Texas.
- Nite, S. B. (2016, June). *Exploring Exponential Functions with the CBR and Graphing Calculator*. Aggie STEM Teacher Boot Camp, College Station, Tx.
- Nite, S. B. (2016, June). *Exploring Linear Functions with the CBR and Graphing Calculator*. Aggie STEM Teacher Boot Camp, College Station, TX.
- Nite, S. B. (2016, May). *Exploring Quadratic Functions with the CBR and Graphing Calculator*. Aggie STEM Teacher Boot Camp, College Station, Tx.
- Nite, S. B. (2016, May). *Writing a STEM PBL: Using the PBL Checklist*. Aggie STEM Teacher Boot Camp, College Station, Tx.
- Nite, S. B. (2016, March). *Integrated CBR Technology in Mathematics and Science Instruction*. Fallbrook Academy, Houston, Tx.

- Nite, S. B. (2016, February). *Using Mimio Clickers to Engage Students and Improve Interaction*. Fallbrook Academy, Houston, Tx
- Nite, S. B. (2016, January). *Using Polya's Problem Solving Process for Standardized Test Success*. Red Oak Independent School District, Red Oak, Tx.
- Nite, S. B. (2016, January). Comparing simple and compound interest loan and investment results. Investigations in Secondary Mathematics and Science – Middle School Mathematics. Texas A&M University, College Station, Tx.
- Barroso, L. R., & Nite, S. B. (2015, November). *Rigor and Questioning*. Brooks Academy of Science and Engineering, San Antonio, Texas.
- Nite, S. B. (2015, November). *Connecting Quadratic Function Representations*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, November). *Linear Patterns in Park Path Designs*. Investigations in Secondary Mathematics and Science – Middle School, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, October). *Performance assessments for quadratic functions*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, October). *The linear parent function*. Investigations in Secondary Mathematics and Science – Middle School, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, October). *Inquiry-based learning and STEM PBL*. Investigations in Secondary Mathematics and Science, Texas A&M University, College Station, Tx.
- Nite, S. B. & Capraro, R. M. (2015, September). *Exploring Transformations of Functions*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, September). *Comparing Arithmetic Sequences and Linear Functions*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Algebra Performance Assessments II*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Algebra Performance Assessments I*. Investigations in Secondary Mathematics and Science – Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Investigating proportions in distance versus time graphs*. Investigation in Secondary Mathematics and Science – Middle School Mathematics, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Pedagogy and Distance versus time graphs*. Investigation in Secondary Mathematics and Science – Middle School Mathematics, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *The St. Louis Arch and Quadratic Functions*. Investigations in Secondary Mathematics and Science - Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Close to 100 Numeracy*. Investigations in Secondary Mathematics and Science - Algebra, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, July). *Facilitation of STEM PBL Observation*. Aggie STEM Teacher Boot Camp and Investigations in Secondary Mathematics and Science, Texas A&M University, College Station, Tx.
- Nite, S. B. (2015, May). *Using Technology to Enhance Mathematics Understanding (5-day series)*. Engineering Leaders Institute for Excellence in Mathematics Education, Texas A&M University at Qatar, Doha, Qatar.
- Nite, S. B. (2015, May). *Using the TI-Navigator with the TI-Nspire CX*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. (2015, March). *Getting started with the TI-Navigator*. Presented at Harmony Science Academy Dallas.
- Nite, S. B. (2015, February). *Using the CBR with the graphing calculator*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. (2015, January). *Professional learning communities*. Presented at Harmony Science Academy Dallas.
- Nite, S. B. (2014, November). *Writing a PBL part 3: Exploration and explanation*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. (2014, November). *Writing a PBL part 2: Developing the ill-defined task and well-defined outcome*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. (2014, October). *Writing a PBL part 1: What TEKS should I cover?* Presented at Harmony Science Academy – Dallas, TX.
- Peterson, C. A. & Nite, S. B. (2014, August). *The student-centered classroom*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. & Peterson, C. A. (2014, August). *Google Chrome I: Rubrics and quizzes*. Presented at Harmony Science Academy – Dallas, TX.

- Nite, S. B. & Peterson, C. A. (2014, August). *Project-based learning example: Benny's bee business*. Presented at Harmony Science Academy – Dallas, TX.
- Nite, S. B. (2014, July). *Flu epidemic: Investigating logistic functions*. Presented at Investigations in Secondary Science and Mathematics Teacher Quality Grant Program, College Station, Tx.
- Nite, S. B. & Nite, S. G. (2014, July). *Cooling down: Investigating exponential decay*. Presented at Investigations in Secondary Science and Mathematics Teacher Quality Grant Program, College Station, Tx.
- Nite, S. B. (2014, July). *Observing a project-based learning lesson*. Presented online for Investigations in Secondary Science and Mathematics Teacher Quality Grant Program, College Station, TX.

GRANTS AND FUNDING

Funded

- 2021 *Governor's Summer Merit Program: Mathematics and Computing STEM Camps 2021*. PI Nite, S. B. with Co-PI Chakravorty, D. & Li, Y. Submitted to Texas Workforce Commission. 03/09/2021-09/08/2021. \$72,500.
- 2020-2021 *Student GenCyber Camps: Summer Camps for Education Service Regions 4 and 6 of the State of Texas*. PI Da Silva, D. with Co-PIs Irby, B., Chakravorty, D., & Nite, S. Submitted to Department of Defense – National Security Agency. 3/1/2020-2/28/2021, \$80,000.
- 2020 *Governor's Summer Merit Program*. PI Nite, S. B. with Co-PI Chakravorty, D. Submitted to Texas Workforce Commission. 2/25/2020-10/25/2020. \$72,500. Note: After this was awarded, TWC canceled all summer camps due to COVID-19.
- 2019-2024 *Strengthening Mathematics Instructions for Elementary & Middle Schools*. PI Li, Y. with Co-Pi Nite, S. B., Co-I's Kelly, L., Yasskin, P., & Howe, R. National Science Foundation #1852942, 6/1/2019 – 5/31/2024, \$1,191,842.
- 2019 *Governor's Summer Merit Program*. S. B. Nite, PI, with CoPI Dhruva Chakravorty. Texas Workforce Commission, \$59,500. 1/1/2019-9/30/2019.
- 2018-2019 *Fostering Seeds for STEM*. A. Bicer, PI, with CoPI S. B. Nite. University of Wyoming College of Education, \$5,000. 11/1/2018-6/30/2019.
- 2018-2022 Houston ISD Service Contract for Professional Development, \$307,500. *Project MUSIHKK* (Mastering Universal Strategies for the Innovative/Instruction of Kodaly for Kids), Houston ISD Professional Development for Arts Educators (PDAE) grant, U.S. Department of Education, 6/15/2018 - 6/14/2022, \$1,336,503. Role: Professional Development Provider
- 2018-2022 Houston ISD Service Contract for Evaluation, \$120,000. *Project MUSIHKK* (Mastering Universal Strategies for the Innovative/Instruction of Kodaly for Kids), Houston ISD Professional Development for Arts Educators (PDAE) grant, U.S. Department of Education, 6/15/2018 - 6/14/2022, \$1,336,503.
- 2016-2018 *Supporting Mathematics in STEM Education (SMSE)*. S. B. Nite PI, with CoPIs. Texas Higher Education Coordinating Board, \$782,209. 2/01/2016-2/28/2018.
- 2017 *Experiencing STEM Through the Eyes of Women STEM Professionals*. Co-Pi with Capraro, R. M., Capraro, M.M., Barroso, L., & Bicer, A. High Tech High Heels, 5/17-8/17 \$21,000.
- 2015-2016 *Fallbrook ISD Professional Development*. R. M. Capraro PI, with Co-PIs Capraro, M. M. Barroso, L. B., and Nite, S. B. ISD Contract. Funded \$30,000. 9/15-8/16
- 2015-2016 *State Farm Empowering Underrepresented Students to Enter STEM Fields*. State Farm, Bloomington, IL. Robert M. Capraro PI, with Co-PIs J. Morgan, M. M. Capraro, S. B. Nite, A. Bicer, & L. Barroso. \$40,000.
- 2015-2016 *Aggie STEM Summer Camp*. R. M. Capraro PI, with Co-PIs Nite, S. B., Barroso, L. B., and Capraro, M. M. State Contract. Funded \$253,000. 5/15-4/16.
- 2014-2016 *Investigations in Secondary Mathematics and Science*, Texas Higher Education Coordinating Board, \$589,000, S. B. Nite PI and Director w/Co-PIs. Funding period: 2/1/2014-4/30/2016
- 2014-2015 *T-STEM Center Continuation*, Texas Education Agency, \$576,985, J. Morgan PI, with Co-PIs Capraro, R. M., Capraro, M. M., & Nite, S. B. Funding period: 9/01/2014-8/31/2015
- 2013-2014 *Mathematics All Around Us: Gas and Oil Applications III*, Halliburton, \$26,675, S. B. Nite PI and Director, with Co-PI Allen, G. D.
- 2012-2013 *Mathematics All Around Us: Gas and Oil Applications II*, Halliburton, \$20,000, S. B. Nite PI and Director, with Co-PI Allen, G. D.

- 2012-2014 *Connecting Algebraic Thinking and Measurement*, Texas Higher Education Coordinating Board, \$231,048, S. B. Nite PI and Director, with Co-PI Allen, G. D.
- 2013 *Flip Your Course*, Texas A&M University Instructional Technology Services, \$2,000.
- 2012-2013 *Large Sections in Business Mathematics: Interaction, Communication, and Personalization through Technology*, TAMU Instructional Technology Services, \$75,000, Evaluation Team.
- 2011-2012 *Mathematics All Around Us: Gas and Oil Applications*, Halliburton, \$26,700, S. B. Nite PI and Director, with Co-PI Allen, G. D.
- 2009-2014 *Retention Through Remediation: Enhancing Calculus I Success*, National Science Foundation (#0856767), \$1.27 million, G. D. Allen PI, with Co-PIs Pilant, M., Nite, S. B. & Whitfield, J.
- 2009-2012 *Functions in Algebra 1 & 2 with Vertical Alignment*, Teacher Quality Grant, Funded by Texas Higher Education Coordinating Board, \$291,576, G. D. Allen PI, with Co-PIs Nite, S. B. & Whitfield, J.
- 2009-2011 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, West Sabine ISD, \$18,500, G. D. Allen PI, with Co-PIs Nite, S. B. (Director) & Whitfield, J.
- 2009-2011 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, Gladewater ISD, \$18,150, G. D. Allen PI, with Co-PIs Whitfield, J. (Director), & Nite, S. B.
- 2008-2010 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, El Paso ISD, \$82,000, G. D. Allen PI, with Co-PIs Whitfield, J., & Nite, S. B.
- 2008-2009 *Algebra II Focus in Mathematics Alignment*, Teacher Quality Grant, Funded by Texas Higher Education Coordinating Board, \$82,000, G. D. Allen PI, with Co-Director/PI Nite, S. B.
- 2002-2004 Ninth Grade Success Initiative Grant, Funded by Texas Education Agency, PI and Director, \$85,000.
- 1999 AP Calculus Grant, Funded by Texas Education Agency, PI and Director, \$3000.
- 1995 Computer Grant, Funded by Brazosport College, PI and Director, \$2000.

Pending

- 2021 Summer Stipends Research Grants. PI Nite, S. B., Awarded through TAMU Limited Submissions to submit to National Endowment for Humanities. 8/2022, \$6,000.
- 2021 American Rescue Plan Grants. PI Nite, S.B., Awarded through TAMU Limited Submissions to submit to National Endowment for Humanities. 1/1/2022 – 12/31/2023, \$150,000.
- 2021 A More Perfect Musical Union: Renewing the Emotional and Academic Learning for PK-5 Children Through Music: An American Roots music perspective. (REAL Music). PI S. B. Nite. Awarded through TAMU internal competition for limited submissions and submitted to National Endowment for Humanities. 10/1/2021-9/30/2023, \$1,158,592.
- 2020 AI Institute: EquAL—An AI Institute to Drive Equity-Based, AI-Augmented Learning. PI Hammond, T. Submitted to National Science Foundation, 9/1/2021-8/31/2026, \$20M.

AWARDS, LISTINGS, AND HONORS

- 2017-2019 Participant, Mentoring and Partnerships for Women in RUME (MPWR)
- 2016 Outstanding Commitment to Excellence and Innovation in Distance Learning by an Organization (4-Year Higher Education), Awarded to Aggie STEM by Texas Distance Learning Association, 3-29-2016.
- 2013 Selected to attend 2014 CE21 PI and Community Meeting, Orlando, FL, Jan 7-8, 2014.
- 2012 Distinguished Honor Graduate, College of Education and Human Development, Texas A&M University, College Station, Texas.
- 2010 Texas State University Representative for Texas A&M University Academic Convocation.
- 2010 Marquis Who's Who in America.
- 2009 First Place Session Winner, Texas A&M University Student Research Week presentation, 2009.
- 2009 Second Place Teaching, Learning, and Culture Department, Texas A&M University Student Research Week presentation.
- 2009 Kappa Delta Pi.
- 2009 Pinnacle Honor Society.
- 2009 Marquis Who's Who in America.
- 2008 Outstanding Service Award, Department of Mathematics, Texas A&M University, 2008.
- 2007 Outstanding Educator, College of Education & Human Development, Texas A&M University, 2007.
- 2005 Panel for Secondary Teaching, Mathematics Career Fair, Texas A&M University.
- 2002-2004 Fellow, Texas Academy of Mathematics Educational Leaders (TAMEL).

1995 Piper Professor Nominee to the state Minnie Piper Foundation, Brazosport College, Freeport, Texas.
Who's Who Among America's Teachers, 6th, 7th, 8th, 9th editions.

EDITORSHIP, REVIEWER

2018-2021 Associate Editor, *Eurasia Journal of Mathematics, Science and Technology Education* (EJMSTE)
2014-current Review Board, Hawaii University International Conferences.
2019 Reviewer, Conference Papers, *Research in Undergraduate Mathematics Education* (RUME)
2018-2019 Reviewer, *Educational Research and Reviews* (ERR)
2017 Reviewer, *Journal of STEM Teacher Education* (JSTE)
2017 Reviewer, *International Online Journal of Educational Sciences* (IOJES)
2017-current Reviewer, *Eurasia Journal of Mathematics, Science and Technology Education* (EJMSTE)
2016-2019 Editorial Review Advisory Board, *International Journal of Research and Innovation in Applied Science* (IJRIA).
2016 Reviewer, Conference Proposals, National Association for Research in Science Teaching (NARST).
2015-current Reviewer, Conference Proposals, American Society of Engineering Education (ASEE).
2015 Reviewer, *Journal of Research in Mathematics Education* (JRME).
2015-current Reviewer, Conference Proposals, Institute of Electrical and Electronic Engineers Frontiers in Education (FIE).
2015-current Reviewer, National Council of Teachers of Mathematics (NCTM) Conference Proposals.
2012-current Reviewer, *Problems, Resources, and Issues in Mathematics Undergraduate Studies* (PRIMUS).
2011-2015 Reviewer, *The High School Journal*.
2014 Reviewer, Conference Proposals, Australasian Association for Engineering Education (AAEE).
2014-current Reviewer, Conference Proposals, American Educational Research Association (AERA).
2012 Reviewer, *The Mathematics Teacher*.
2011-2012 Reviewer, Deans Award Papers, Southwest Educational Research Association.
2011-current Reviewer, Conference Proposals, Southwest Educational Research Association.
2009 Contributor, Billstein, B, Libeskind, L., & Lott, J. *Insider's Guide for Problem Solving Approach to Mathematics for Elementary School Teachers*, Addison-Wesley Publishing.
2006 Grant Reader for Texas Education Agency T-STEM Academies Grants, Austin, Texas.
2002 Grant Reader for Texas Education Agency Ninth Grade Success Initiative, Austin, Texas.
2009-present Associate Editor, *Focus on Mathematics Pedagogy and Content*.

Book Reviewer

Fundamental Mathematics for Science and Engineering, PASCO Education, for Qatar Ministry of Education, 2018.
College Algebra, OpenStax College, Rice University, 2017.
Algebra and Trigonometry, OpenStax College, Rice University, 2015.
Modeling with Mathematics: A Bridge to Algebra 2, 2nd edition, W. H. Freeman, 2012.
Mathematics for Elementary Teachers: A Contemporary Approach, 8th edition, Wiley Publishing, 2006.
Modeling with Mathematics: A Bridge to Algebra 2, W.H. Freeman, 2005.

COURSES TAUGHT/DEVELOPED*

University

Math 131	Mathematical Concepts – Calculus
Math 141	Business Mathematics I
Math 150	Functions, Trigonometry, and Linear Systems
Math 166	Topics in Contemporary Mathematics II
Math 365	Structure of Mathematics I
Math 366	Structure of Mathematics II
Math 367	Basic Concepts of Geometry
Math 403	Mathematics and Technology
Math 689*	Special Topics – Teaching Mathematics at the Collegiate Level
Math 1311	Fundamentals of Mathematics

Math 1315	College Algebra
TEFB 412	Mathematics Methods in Elementary Education
Math 1105	Data Analysis, Probability, and Algebra for Elementary School Teachers
Math 2205	Calculus 2

Community College

Math 0304	Fundamentals of Mathematics	Math 1324	Math for Business and Economics I
Math 0306	Beginning Algebra	Math 1325	Math for Business and Economics II
Math 0308	Intermediate Algebra	Math 1342	Probability and Statistics
Math 1314	College Algebra	Math 2312	Precalculus
Math 1316	Trigonometry	Music 1301	Introduction to Music, Piano

High School

Physical Science, Algebra 1, Geometry, Algebra II, Mathematics of Money, Computer Math*, Computer Science*, Mathematical Models with Applications*, SAT/ACT Prep Course*, Advanced Mathematical Application*, Pre-AP Precalculus, AP Calculus, AP Physics

SERVICE

2018-2019	Center for Assistance in Statistics and Mathematics (CASM), Project Coordinator Hiring Committee, University of Wyoming, Laramie, Wyoming.
2018-2019	Undergraduate Committee, Department of Mathematics and Statistics, University of Wyoming, Laramie, Wyoming.
2018-2019	Mathematics Majors Advisor, Department of Mathematics and Statistics, University of Wyoming, Laramie, Wyoming.
2017-2018	Faculty Mentor, Aggie Research Scholars Program & Aggie Research Leadership Program
2017-2018	Regent Scholars Mathematics Tutor, Texas A&M University, College Station, Texas.
2016	Blackboard Collaborate Ultra Pilot Group, Instructional Technology Services, Texas A&M University, College Station, Texas.
2016	Nite, S. B., & Currens, K. A. (2016, October). Modeling sound waves with periodic functions. Math Circle, October 15, 2016. Texas A&M University, College Station, Texas.
2016	Nite, S. B., & Barroso, L. R. (2016, October). Exploring and modeling lung capacity with functions. Math Circle, October 8, 2016. Texas A&M University, College Station, Texas.
2016	Nite, S. B., & Bicer, A. (2016, September). Using a dilution experiment to investigate a sequence. Math Circle, September 20, 2016. Texas A&M University, College Station, Texas.
2016	Root Cause Analysis Study of Snook ISD, Department of Teaching Learning and Culture, College of Education and Human Development, Texas A&M University, College Station, Tx.
2015	Nite, S. B. (2015, June/July). Number and Operations and Linear Equations. Aggie STEM Summer Camp, Texas A&M University, College Station, Tx.
2015	Hour of Code Organizer for Secondary Students, Texas A&M University.
2014-2015	Blackboard Collaborate Pilot Group, Instructional Technology Services, Texas A&M University, College Station, Tx.
2015	Judge, I-SWEEEP 2015 Olympiad, Harmony Public Schools, George R. Brown Convention Center, Houston, Texas.
2012-2013	MATH 36x Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
2012-2013	Space Allocation Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
2011-2012	Advisory Board, Developmental Education Demonstration Project Evaluation, Texas A&M University, Texas Higher Education Coordinating Board.
2010-2011	Lecturer Seminar Series Co-Coordinator, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
2010	Advisory Committee for the Creation of the Lecturer Core Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
2009-present	Brazos Valley P-16 Council, Bryan, Texas.

- 2009 Discussion Leader, Lecturer Meeting with External Review Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
- 2009-2011 Mathematics Program Representative, TLAC Graduate Student Association, Department of Teaching, Learning, and Culture, College of Education and Human Development, Texas A&M University, College Station, Texas.
- 2009 TLAC Representative, Graduate Student Council, Texas A&M University.
- 2009 Legislative Committee, Graduate Student Council, Texas A&M University.
- 2008-2009 Committee for Core Success in Mathematics, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
- 2008-2009 Mathematics Awareness Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
- 2007-2009 Mathematics 141 Redesign Committee, Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
- 2007 Assistant Chairman, Rooms Committee, National Council of Teachers of Mathematics (NCTM) Regional Conference, Houston, Texas.
- 2005-2006 Mentor for Mathematics Majors (10), Department of Mathematics, College of Science, Texas A&M University, College Station, Texas.
- 2003-2005 Treasurer, Parent Teacher Organization, Sweeny High School, Sweeny Independent School District, Sweeny, Texas.
- 1998-2005 Site Based Management Committee, Sweeny High School, Sweeny Independent School District, Sweeny, Texas.
- 1998-2002 Facilities Committee, Columbia-Brazoria Independent School District, West Columbia, Texas.
- 1999-2001 Superintendent's Advisory Committee, Columbia-Brazoria Independent School District, West Columbia, Texas
- 1999-2001 Site Based Management Committee, Columbia High School, Columbia-Brazoria Independent School District, West Columbia, Texas.
- 1998 Treasurer, Bond Promotion Committee, Columbia-Brazoria Independent School District, West Columbia, Texas.
- 1995-1997 Treasurer, Parent Teacher Organization, West Columbia Junior High School, West Columbia Independent School District, West Columbia, Texas.
- 2003 Workshop. The Real MMA Classroom. Alief Mathematics Summit, Alief Independent School District, Alief, Texas.
- 1997 Invited Talk. Rhythm Activities and Child Development. Elementary Physical Education Class, Brazosport College, Lake Jackson, Texas.
- 1995-1996 Co-Chairperson, Composition Festival, Brazosport Music Teachers Association, Lake Jackson, Texas.
- 1994-1996 Co-Chairperson, Keyboard Kapers, Brazosport College, Lake Jackson, Texas.

CONSULTING

- 2015-2018 External Grant Evaluator. Austin Independent School District, Austin, Texas.
- 2015-2016 Project-based Learning curriculum writer. Southern Regional Education Board, Atlanta, Georgia.
- 2014-2015 Texas State Kodály Program evaluation. Texas State University, San Marcos, Texas.
- 2012-2013 New Teacher Mentor and Inservice Provider. Hempstead Independent School District, Hempstead, Texas.
- 2010 Inservice Provider, Using Manipulatives in the Elementary Classroom. West Sabine Independent School District, Pineland, Texas.
- 2007 Inservice, Kodály Method and Mathematics Integration. Angleton Independent School District: Angleton, Texas.
- 2006-2007 Inservice (online through conferencing software). Teaching Algebra 1. Mathis Independent School District, Mathis, Texas and Stafford Municipal School District, Stafford Texas.
- 2005 Inservice Provider. Using the CBR/CBL in the Mathematics Classroom. Snook Independent School District, Snook, Texas.
- 2005 External Evaluator, Teacher Quality Grant, Texas A&M University, College Station, Texas.
- 2001-2005 Consultant and Teacher Trainer for Mathematical Models with Applications, W. H. Freeman Publishers, New York, NY.

- 2000-2005 Contract Writer for Geometry and Algebra 2, Region IV Education Service Center, Houston, Texas
- 2000-2005 Contract Writer for Mathematical Models with Applications, Mathematical Models with Applications, COMAP, Boston, MA.
- 2001 Inservice Provider. Algebra I Curriculum at Sweeny High School, Region VI Education Service Center, Huntsville, Texas.
- 2000-2001 Workshop (5 days). TEXTEAM Algebra II/Precalculus Institute. Sweeny Independent School District, Sweeny, Texas.
- 1999-2000 Workshop (5 days). TEXTEAM Mathematical Models for Secondary Teachers Institute. Sweeny Independent School District, Sweeny, Texas.
- 1998-2005 Inservice Provider. Teaching Secondary Mathematics. Sweeny Independent School District, Sweeny, Texas.
- 1995-2003 Workshop. Using Finale to Notate a Song Collection. Kodály Graduate Program, Texas State University, San Marcos, Texas.
- 1997 Inservice Provider. Using Equation Editor for Mathematics. Sweeny Independent School District, Sweeny, Texas.
- 1996-1997 Inservice Provider. Computers for Preschool Teachers. Ms. Missy's Day Care, West Columbia, Texas.
- 1996-1997 Inservice Provider. Music for Preschool Teachers. Ms. Missy's Day Care, West Columbia, Texas.
- 1996 Inservice Provider. Music for Elementary Teacher, Grades K-6. Gause Independent School District, Gause, Texas.
- 1994 Inservice Provider. Introduction to Finale. Angleton Independent School District, Angleton, Texas.

PROFESSIONAL ASSOCIATIONS

- 2020- Division Chair for Division 2, Instruction, Learning, and Cognition, Southwest Educational Research Association (SERA).
- 2018-2021 Board of Directors, Southwest Educational Research Association (SERA).
- 2018-present Member, Mathematical Association of America (MAA)
Research in Undergraduate Mathematics Education (RUME); Undergraduate Research (UR)
- 2016-present Member, American Society for Engineering Education (ASEE)
- 2014-present Member, American Educational Research Association (AERA).
- 2013-present Member, Texas Distance Learning Association (TxDLA).
- 2011-2015 Member, School Science and Mathematics Association (SSMA).
- 2003-present Member, National Council of Teachers of Mathematics (NCTM).
- 2000-2013 Member, Texas Association of Supervisors of Mathematics (TASM).
- 2010-2016 Member, National Council of Supervisors of Mathematics (NCSM).
- 2011-present Member, Texas Computer Education Association (TCEA).
- 2011-2012 Graduate Student Representative, Executive Council, Southwest Educational Research Association (SERA).
- 2010-2011 TAMU Graduate Student Representative, Graduate Student Council, Southwest Educational Research Association (SERA).
- 2009-2012 Mathematics Education Representative, Teaching, Learning, and Culture (TLAC) Graduate Student Association.
- 2009 TLAC Representative, Graduate Student Council (GSC), Texas A&M University.