

SANDRA BONORDEN NITE

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Department of Mathematics

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EDUCATION

- Ph.D. Mathematics Education, Texas A&M University, Doctoral Candidate
Prelim Qualification Passed December 2011
- M.M. Music Education, Texas State University, 1997
- M.S. Mathematics, Texas State University, 1977
- B.S. Mathematics, Texas State University, 1975

PROFESSIONAL LICENSES

- Texas* Educator Certificate Master Mathematics Teacher, 2007- 2012
- 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 Kodály Certification, 1996 - Present

EDUCATIONAL EMPLOYMENT

University

- 2008 – Present Associate Director, Center for Technology-Mediated Learning in Mathematics, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2008 – Present Director of AP Institutes in Mathematics, Department of Mathematics, College of Science, Texas A&M University, College Station, TX
- 2005 – Present Senior Lecturer, 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

Mathematics Education
Music Education
Mentoring/Coaching

PUBLICATIONS

- Nite, S. (2012, in press). 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. XXX-XXX). Hoboken, NJ: John Wiley and Sons.
- 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*, W. H. Freeman, New York, NY.

CONFERENCES

National/International

- 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.
- 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.

Regional

- 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, *Southwest Educational Research Association Conference*: New Orleans, LA.
- Nite, S. B. (2011, February). Engineering calculus success at Texas A&M University. *Southwest Education Research Association*: San Antonio, Texas.

Nite, S. B. (2010, February). An introduction to canonical correlation analysis. *Southwest Educational Research Association*: New Orleans, Louisiana.

State

- Nite, S. B. (2012, February). Introducing the logistic function. Sam Houston State University Conference on Mathematics Teaching 6-12. Sam Houston State University: Huntsville, Texas.
- Nite, S. B. (2011, February). Cognitive demand in precalculus. Sam Houston State University Conference on Mathematics Teaching 6-12. Sam Houston State University: Huntsville, Texas.
- Nite, S. B. & Bleyer, C. (2011, February). Advanced quantitative reasoning: A fourth year math course for Texas students. Texas Association of Supervisors of Mathematics: Austin, Texas.
- Nite, S. B. & Nite, S. G. (2009). Using Polya's problem solving process for TAKS. 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. Conference for the Advancement of Mathematics Teaching: Dallas, Texas.
- Nite, S. B. (2002). Mathematics and music: Geometric transformations. Conference for the Advancement of Mathematics Teaching: Dallas, Texas.
- Nite, S. B. (2000). Mathematics and music. Conference for the Advancement of Mathematics Teaching: Houston, Texas.
- Nite, S. B. (1999). Strategies for success in Algebra I. Conference for the Advancement of Mathematics Teaching: Dallas, Texas.
- Nite, S. B. (1998). A sound approach to the keyboard. Texas Music Educators Association (TMEA) Convention: San Antonio, Texas.
- Yarborough, H. & Nite, S. B. (1998). A discovery approach. Conference for the Advancement of Mathematics Teaching: San Antonio, Texas.
- Yarborough, H. & Nite, S. B. (1997). A discovery approach. Conference for the Advancement of Mathematics Teaching: Houston, Texas.

Local

- 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.
- Nite, S. B. (2009). Research in mathematics education. Gladewater Math Instructional Coaches Program: Gladewater, 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.

GRANTS AND FUNDING

- 2012-2013 *Connecting Algebraic Thinking and Measurement*, Texas Higher Education Coordinating Board, \$98,000, PI.
- 2011-2012 *Mathematics All Around Us: Gas and Oil Applications*, Halliburton, \$26,700, PI.
- 2009-2012 *Retention Through Remediation: Enhancing Calculus I Success*, National Science Foundation, \$1.15 million (future funding \$829,450 for 2013-2014 contingent upon progress), Co-PI.
- 2011-2012 Teacher Quality Grant, Funded by Texas Higher Education Coordinating Board, \$101,576, Co-PI.
- 2009-2011 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, West Sabine ISD, \$18,500, Co-PI & Director.
- 2009-2011 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, Gladewater ISD, \$18,150, Co-PI.
- 2009-2011 Teacher Quality Grant, Funded by Texas Higher Education Coordinating Board, \$190,000, Co-PI.

- 2008-2010 Contract for Texas Education Agency Mathematics Instructional Coaches Service Provider, El Paso ISD, \$82,000, Co-PI.
 2008-2009 Teacher Quality Grant, Funded by Texas Higher Education Coordinating Board, \$82,000, Co-PI.
 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.

AWARDS, LISTINGS, AND HONORS

- 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

- 2012 Reviewer, Deans Award Papers, Southwest Educational Research Association.
 2011 Reviewer, *The High School Journal*.
 2011 Reviewer, Deans Award Papers, Southwest Educational Research Association.
 2011 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

- Modeling with Mathematics: A Bridge to Algebra 2*, 2nd edition, W. H. Freeman, in press.
Mathematics for Elementary Teachers: A Contemporary Approach, Wiley Publishing, 2006.
Modeling with Mathematics: A Bridge to Algebra 2, W.H. Freeman, 2005.

COURSES DEVELOPED*/TAUGHT

University

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| Math 131 | Mathematical Concepts – Calculus |
| Math 141 | Business Mathematics I |
| Math 150 | Functions, Trigonometry, and Linear Systems |
| Math 365 | Structure of Mathematics I |
| Math 366 | Structure of Mathematics II |
| Math 403 | Mathematics and Technology |
| Math 689* | Special Topics – Teaching Mathematics at the Collegiate Level |
| Math 1311 | Fundamentals of Mathematics |
| Math 1315 | College Algebra |

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
Math 1342	Statistics		

High School

Physical Science, Algebra I, 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

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

- 2011-2012 Test Bank Co-Writer, *Modeling with Mathematics: A Bridge to Algebra 2*, 2nd edition. W. H. Freeman Publishers, New York, NY.
- 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 Alebra 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

- 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.
- 2011-present Member, School Science and Mathematics Association (SSMA).
- 2003-present Member, National Council of Teachers of Mathematics (NCTM).
- 2000-present Member, Texas Association of Supervisors of Mathematics (TASM).
- 2010-present Member, National Council of Supervisors of Mathematics (NCSM).
- 2011-present Member, Texas Computer Education Association (TCEA).