

Curriculum Vitaeⁱ

Dionne T. Bailey

INSTITUTIONS OF HIGHER EDUCATION ATTENDED

- Odessa College, 1990-1993
- Midland College, 1990-1993, A.S. in Engineering
- The University of Texas of the Permian Basin, 1994-1996, B.S. in Mathematics
- Emory University, 1996-2001, Ph.D. in Mathematics

TEACHING POSITIONS

- Emory University, Teaching Assistant, 1997-2001
- Angelo State University, Assistant Professor, 2001-2009
- Angelo State University, Associate Professor, 2009-2015
- Angelo State University, Professor, 2015-present

HONORS

- Texas Tech Chancellor's Council Distinguished Teaching Award, May 2023.
- Angelo State University Faculty Excellence in Teaching Winner, May 2022.
- Angelo State University Twenty Years Service Award, 2021.
- The article "Math Students Maintain Perfect TExES Exam Pass Rate" appeared on the [ASU news webpageⁱⁱ](#), May 2021.
- The article "Math Students Maintain Perfect TExES Test Pass Rate" appeared on the [ASU news webpageⁱⁱⁱ](#), February 2019.
- The article "Math Students Maintain Perfect TExES Pass Rate" appeared on the [ASU news webpage^{iv}](#), January 2018.
- The article "The Streak" appeared on the [ASU news webpage^v](#), June 2017.
- Angelo State University Fifteen Years Service Award, January 2017.
- Angelo State University Faculty Excellence in Teaching Semi-finalist, May 2016.
- Angelo State University Faculty Excellence in Teaching Semi-finalist, May 2012.
- Angelo State University Ten Years Service Award, April 2012.
- Keynote Speaker at the 4th Annual Student Research Conference of the University of Texas System Louis Stokes Alliance for Minority Participation (LSAMP), October 2002.
- Highlighted in the 2002 *National LSAMP Magazine* by the UT System LSAMP, 2002.
- Marshall Hall, Jr., Teaching Award, Emory University, May 2001.
- Emory Minority Graduate Fellow, September 1996 - May 2001.
- University of Texas System Alliance for Minority Participation (AMP) Student Research Award, June 1995 - May 1996.

DIRECTED UNDERGRADUATE RESEARCH

- "Extending the Eternal Triangle," Spring 2022

- “Topics in Number Theory,” Spring 2017
- “Topics in Problem Solving,” Summer 2016
- “Topics in Mathematics with Applications,” Summer 2015
- “Discrete Optimization Problems,” Fall 2012
- “Advanced Combinatorics,” Spring 2011. Student presented some of his work in a presentation entitled “Hat Guessing Games” at the Texas Academy of Science in March 2011 and the Texas section of the MAA in April 2011.
- “Exploring Hypercubes,” Fall 2010
- “Applications of Graph Theory,” Fall 2008. Student presented some of her work in a presentation entitled “Puzzling Graphs” at the Texas section of the MAA in April 2009.
- “Chemical Applications of Group Theory,” Spring 2007
- “Mathematics of Games,” Spring 2005
- “Mathematical Structures of Music,” Fall 2004
- “Abstract Algebra II”, Spring 2004

SIGNIFICANT PROFESSIONAL PUBLICATIONS

- T. Leong, D. Bailey, E. Campbell, C. Diminnie, and P. Swets, “An Alternative Approach to the A=mP Problem for Triangles,” *Mathematics Magazine*, 80, no. 5, December 2007, pp. 363-368.
- D. Bailey and V. Powers, “Constructive Approaches to Representation Theorems in Finitely Generated Real Algebras,” *DIMACS Series in Discrete Mathematics and Theoretical Computer Science*, 60, 2003, pp. 13-21.
- D. Bailey and R. Fletcher, “The Square Root of a Partially Looped Tournament,” *Congressus Numerantium*, 122, 1996, pp. 161-183.

CONFERENCE PRESENTATIONS

- Invited keynote speaker for the Second Annual Daughters and Mothers Achieving Success Conference in Pecos, Texas, January 2020. This one-day event is open to all girls in grades 6-12 and their female role models.
- “The Arithmetic-Geometric Mean Inequality in Precalculus,” Annual meeting of the Texas Section of the Mathematical Association of America, April 2013.
- “The Arithmetic-Geometric Mean Inequality in Precalculus,” Texas Academy of Sciences, March 2013.
- “Cassini’s Identity,” Annual meeting of the Texas Section of the Mathematical Association of America, April 2012.
- “Cassini’s Identity,” Texas Academy of Sciences, March 2012.
- “Applications of Jensen’s Inequality”, Texas Academy of Sciences, March 2011.
- “Methods for Approximating Square Roots”, Annual meeting of the Texas Section of the Mathematical Association of America, April 2010.
- “Methods for Approximating Square Roots”, Texas Academy of Sciences, March 2010.
- “Another Approach for Solving A=mP for Triangles”, Annual meeting of the Texas Section of the Mathematical Association of America, April 2009.
- “Another Approach for Solving A=mP for Triangles”, Texas Academy of Sciences, March 2009.
- “Mean Stuff,” Annual meeting of the Texas Section of the Mathematical Association of America, April 2008.

- “Mean Stuff,” Texas Academy of Science Annual Meeting, March 2008.
- “Math Activities – Literacy and Manipulatives,” Mathematics for English Language Learners Conference, July 2007.
- “Analytic Approach to Polygonal Area,” Mathematics for English Language Learners Conference, July 2007.
- “MELL Initiative Project – Mathematics for English Language Learners,” Conference for the Advancement of Mathematics, June 2007.
- “Who was Pascal?” Pi Mu Epsilon initiation dinner, Angelo State University, May 2007.
- “Analytic Approach to Polygonal Area,” Texas Academy of Science Annual Meeting, March 2007.
- “Pre-Service Best Practice – A ‘Checklist of Guiding Principles’ Instrument,” Mathematics for English Language Learners Conference, July 2006.
- “Solving Optimization Problems using Precalculus Methods,” Annual meeting of the Texas Section of the Mathematical Association of America, April 2006.
- “Contemporary Practices in Mathematics Preservice Education,” International Mathematics and Education Conference, July 2005.
- “Analytic Approach to Polygonal Area,” Annual meeting of the Texas Section of the Mathematical Association of America, April 2005.
- “Solving Optimization Problems using Precalculus Methods,” Texas Academy of Science Annual Meeting, March 2004.
- “The Square Root of a Partially Looped Tournament,” NSF Alliances for Minority Participation (AMP) National Student Research Conference, July 1996.
- “The Square Root of a Partially Looped Tournament,” MAA Annual Meeting, Texas Section, March 1996.

OTHER PROFESSIONAL ACTIVITY

- Collaborated with Karl Havlak and Autumn Hoover to design a standards-based approach in precalculus. This work was supported by the CREEME engineering grant to meet an objective for improving the pass rates in bottleneck courses in the engineering programs, Summer 2021.
- Program Director, ASU-Howard College Title III HSI STEM grant, 2013-2016.
- Supported by the NSF-funded grant Science Partnership for Undergraduate Recruitment, Retention, and Success (SPURRS), 2010-2014.
- Served as Vice Chair of the Mathematics Section of the Texas Academy of Science, 2008-2013.
- Supported by the Texas State University System Mathematics for English Language Learners (TSUS-MELL) initiative, 2005-2007.
- Texas Section Project NExT Fellow, 2002.

ⁱ This vita (revised on January 2024) is prepared in response to HB 2504, in accordance with THECB Rule 4.227(2).

ⁱⁱ <https://www.angelo.edu/live/news/18409-math-students-maintain-perfect-texas-exam-pass>

ⁱⁱⁱ <https://www.angelo.edu/content/news/16837-math-students-maintain-perfect-texas-test-pass>

^{iv} <https://www.angelo.edu/content/news/15771-math-students-maintain-perfect-texas-pass-rate>

√ <https://www.angelo.edu/content/news/14333-the-streak/Templates/news-feature.php>