

**ALEXANDRA FORAN**  
**Department of Teaching, Learning, and Culture**  
**Texas A&M University**  
**Email: aliforan@tamu.edu**  
*Current as of 06/2020*

## **EDUCATION**

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*PhD, Curriculum and Instruction, Texas A&M University, 2018*  
Concentration: Mathematics Education

*M.S., Mathematics, Texas Christian University, 2012*  
Concentrations: Commutative Algebra, Algebraic Geometry

*B.A., Mathematics and Spanish, Hardin-Simmons University, Magna Cum Laude, 2010*

## **PROFESSIONAL EXPERIENCE IN HIGHER EDUCATION**

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### **Texas A&M University**

*Department of Mathematics*

Lecturer, 2019-Present

*Courses taught: MATH 150, MATH 151, MATH 366*

*Extra Assignments: Week-in-Review for MATH 150*

Personalized Pre-calculus Program Tutor, Summer 2017, 2018

*Department of Teaching, Learning, and Culture (TLAC)*

Post-Doctoral Research Associate, 2018 – 2019

Worked under Dr. Roger Howe to develop elementary mathematics education curriculum that efficiently prepares teachers to teach mathematics in the EC-6 environment

Graduate Assistant, Research, 2015 – 2018

Undergraduate Mathematics Education Teacher Preparation Project under Dr. Roger Howe and Dr. Yeping Li, 2016 – 2018

- Worked to develop a curriculum framework for mathematics in elementary teacher preparation programs.

Aggie STEM, 2015-2016

- Researched implementing STEM Project-Based Learning (PBL) in K-12 environments.
- Organized and ran a Teacher Boot Camp for middle and high school teachers to learn about STEM PBL implementation during the summer of 2015
- Organized and ran 4 residential STEM PBL Camps for middle- and high-school students on Texas A&M Campus during the summer of 2016

Graduate Assistant, Teaching, 2015 – 2017

*Courses taught:*

Problem Solving in Mathematics

Senior Elementary Mathematics Methods

- Supervisor for field experience in local elementary schools

### **Blinn College**

*Department of Mathematics*

Adjunct Instructor, 2018

*Course:*

Calculus for Business and Social Sciences

### **Amarillo College**

*Department of Mathematics*

Adjunct Instructor, 2017

*Course:*

Statistics

### **Tarrant County College**

*Department of Mathematics*

Adjunct Instructor, 2013 - 2014

*Courses:*

Beginning Algebra, Math Business 1, College Algebra, Pre-calculus, Calculus I

### **Texas Christian University**

*Department of Mathematics*

Adjunct Instructor, 2013 - 2014

*Courses:*

Applied Pre-calculus, Pre-calculus with Trigonometry, Mathematics for Middle School Teachers I, Mathematics for Middle School Teachers II

Graduate Assistant, Teaching, 2012 - 2013

*Course:*

Applied Pre-calculus

Teaching Assistant, 2010 - 2012

*Courses:*

Differential Equations, Linear Algebra, Discrete Math 1, Discrete Math 2

### **JOURNAL PUBLICATIONS**

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Barroso, L. R., Bicer, B., Capraro, M. M., Capraro, R. M., **Foran, A. L.**, Grant, M. R., Lincoln, Y. S., Nite, S. B., Oner, A. T., Rice, D. (2017). Run! Spot. Run!: Vocabulary development and the evolution of STEM disciplinary language for secondary teachers. *ZDM Mathematics Education*, 49(2), 187-201.

### **CONFERENCE PRESENTATIONS**

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**Foran, A. L.**, Welder, R. M., & Williams, A. M. (2021, February, submitted) Multi-step addition and subtraction problem posing: Common errors made by prospective K-8 teachers. Proposal submitted to the Annual AMTE Conference, Orlando, FL.

- Foran, A. L.,** Welder, R. M., (2020, October, accepted) Error patterns in prospective K-8 teachers' posing of multi-step addition and subtraction word problems. Proposal accepted for the 42nd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mazatlán, Mexico.
- Foran, A. L.,** Goldsby, D., Lee, Y., (2018, April). Using oldies and new hits to introduce statistics. Proposal presented at the annual meeting of the National Council of Teachers of Mathematics, Washington, D.C.
- Foran, A. L., & Whitfield, J.,** (2017, February). *Teacher retention among Robert Noyce scholars*. Paper presented at the annual meeting of the Southwest Educational Research Association Conference, San Antonio, TX.
- Foran, A. L.,** (2017, February). *Problem-Posing to Promote Creativity in Mathematics Teacher Education*. Paper presented at the annual meeting of the Southwest Educational Research Association Conference, San Antonio, TX.
- Foran, A. L.,** Kopparla, M., & Ortiz, N. A. (2016, February). Ethnological effects on creativity perspectives in STEM education. Paper presented at the annual meeting of the Southwest Educational Research Association Conference, New Orleans, LA.
- Foran, A. L.,** (2016, February). Generalizability theory: Introduction, computation, and decision-making. Paper presented at the annual meeting of the Southwest Educational Research Association Conference, New Orleans, LA.
- Hill, K. K., **Foran, A. L.,** Reeves, L. G., & Capraro, M. M. (2016, February). Effect of gender on student creativity. Paper presented at the annual meeting of the Southwest Educational Research Association Conference, New Orleans, LA.
- Reeves, L. G., Hill, K. K., & **Foran, A. L.** (2016, January). 3D printing toys for underprivileged kids: A service learning STEM project for middle school students. Paper presented at the 9th Annual Texas STEM Conference: Inspire, Innovate, Integrate! STEM Education for the Future, San Antonio, TX.
- Foran, A. L.,** Hill, K. K., Bicer, A., Kwon, H., & Kopparla, M. (2015, October) Q-TiPs: Quality of Teachers in the Perception of Students. Paper presented at the School Science and Mathematics Conference, Oklahoma City, OK.
- Kopparla, M., **Foran, A. L.,** Boedeker, P. J., Ortiz, N. A., Bicer, A., Hill, K., Ji, X., & Joshi, M. (2015, October). Cognitive and Neuro-scientific Components of Dyscalculia: A Systematic Review. Paper presented at the annual meeting of the School Science and Mathematics Association Conference, Oklahoma City, OK.
- Bicer, A., Boedeker, P. J., **Foran, A. L.,** Hill, K. K., Lopez, R., Capraro, R. M., & Capraro, M. M. (2015, February). Examining the effects of STEM PBL on students' mathematical and scientific vocabulary knowledge. Paper presented at the annual meeting of Southwest Educational Research Association Conference, San Antonio, TX.

Boedeker, P. J., Bicer, A., **Foran, A. L.**, & Hill, K. K. (2015, February). Pre-Service teacher technology preparation. Paper presented at the annual meeting of Southwest Educational Research Association Conference, San Antonio, TX.

**Foran, A. L.**, (2015, February). A clear explanation of fixed-, random-, and mixed-effects ANOVA models. Paper presented at the annual meeting of Southwest Educational Research Association Conference, San Antonio, TX.

**Foran, A. L.**, Bicer, A., & Boedeker, P. J. (2015, February). Pre-service teachers' perception of mathematics. Paper presented at the annual meeting of Southwest Educational Research Association Conference, San Antonio, TX.

Bicer, A., **Foran, A. L.**, Boedeker, P. J., Hill, K. K., & Kopparla, M. (2015, January). Interdisciplinary STEM project-based learning for meaningful understanding. Paper presented at the annual meeting of the Texas STEM Conference, Austin, TX.

**Foran, A. L.**, Bicer, A., Boedeker, P. J., Hill, K. K., & Kopparla, M. (2015, January). Implementing STEM project-based learning in an inquiry-based classroom. Presented at the annual meeting of the Texas STEM Conference, Austin, TX.

## **AWARDS AND HONORS**

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Leadership in Online Instructional Training, 2020 – Texas A&M University, Department of Mathematics

Graduate Student Teaching Award, 2018 – Texas A&M University, Department of Teaching, Learning, and Culture

Heep Fellowship, 2014-2015 – Texas A&M University

Graduate Student Teaching Award, 2013 – Texas Christian University, Department of Mathematics

Burnam Mathematics Award, 2010 – Hardin-Simmons University

Holland medal of Mathematics, 2009 – 2010 – Hardin-Simmons University

W.T. Reid Mathematics Scholar – Hardin-Simmons University

Holland School of Math and Sciences Scholar – Hardin-Simmons University

Top Freshman in Mathematics, 2007– Hardin-Simmons University

### **Grants:**

College of Education and Human Development (CEHD) Graduate Research Grant, 2016  
Awarded for the purpose of conducting a pilot study on dissertation research (\$1000)

CEHD Climate and Diversity Efforts Grant, 2017

Awarded to the TLAC Graduate Student Leadership to support the continuation of the funded 2015-2016 structured mentoring program initiative (\$2500)

## **SERVICE AND LEADERSHIP**

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### **Departmental Leadership:**

**Texas A&M University**

Personalized Precalculus Program Co-Director, 2020-present

**Graduate Student Leadership:**

**Texas A&M University**

TLAC Graduate Student Association President, 2017-2018

Graduate and Professional Student Council, TLAC Departmental Delegate and Marketing Committee Member, 2017-present

Mathematics Matters in Education (MME) Workshop, 2015, 2017

Assisted coordinating the event each year under supervision of workshop organizers.

Responsibilities include arranging registration, lodging, food, and daily schedules.

CEHD Graduate Student Advisory Council, 2016-present

TLAC Graduate Student Association Vice President, 2016-2017

Aggie STEM Summer Camp Director, 2016

TLAC Graduate Student Association Treasurer, 2015-2016

Aggie STEM Teacher Boot Camp Director, 2015

**Southwest Educational Research Association (SERA) Conference**

Graduate Student Board Representative, 2016-2017

Texas A&M Graduate Representative, 2015-2016

Proposal Reviewer, 2015-2017