Curriculum Vita

Stephanie Tarigan
Instructor of Record
Department of Mathematics, College of Science and Engineering

I. ACADEMIC/PROFESSIONAL BACKGROUND

Degree	*Year*	*University*	*Major*
Ph. D.	2022 - present	Texas State University	Mathematics Education
B. S.	2019	Howard Payne University	Mathematics

A. University Experience

Position	*University*	*Dates*
Instructor of Record	Texas State University	2024 – present
Doctoral Research Assistant	Texas State University	2023 – present
Doctoral Instructional Assistant	Texas State University	2022 – 2023

B. Relevant Professional Experience

Position	*Entity*	*Dates*
Graduate Student Researcher	Mathworks Junior Summer Math Camp	2024 – present
Master Teacher	Mathworks Junior Summer Math Camp	2024 – present
Senior School Mathematics Teacher	Sekolah Pelita Harapan – Jakarta, Indonesia	2019 – 2022
Middle School Mathematics Teacher	Sekolah Pelita Harapan – Jakarta, Indonesia	2019 – 2022
Senior School Team Leader Administrator	Sekolah Pelita Harapan – Jakarta, Indonesia	2021 – 2022
Mathematics Tutor	Howard Payne University – Brownwood, TX	2018 – 2019

II. TEACHING

A. Courses Taught:

Texas State University

MATH 1311 Intermediate Algebra: This preparatory course for college algebra includes linear equations and inequalities, rational expressions, exponents and radicals, quadratics and word problems. This course is designed for students who've graduated from high school with no more than the minimum mathematics requirements or for students who've been away from mathematics for years. Prerequisites: TSI Assessment Test Score of 345 or more.

MATH 1316 Survey of Contemporary Mathematics: This course is a study of the uses of mathematics in society today. Emphasis is on concepts rather than technical details. Prerequisite: College Readiness in Mathematics according to TSI regulations.

MATH 2311 Principles of Mathematics I: This course is intended to build and reinforce a foundation in fundamental mathematics concepts and skills for teaching. It includes the conceptual development of the base ten numeration system, the structure and properties of the various number systems and operations, and number theory. All topics are explored with an emphasis on problem-solving and critical thinking. Prerequisite: MATH 1312 or MATH 1315 or MATH 1319 or MATH 2321 or MATH 2417 any with a grade of "C" or better.

MATH 2417 Pre-Calculus Mathematics (Lab): This course is a survey of functions, trigonometry, and analytic geometry. Students' algebraic skills are reinforced throughout the course. Prerequisites: [MATH 1315 or MATH 1319 with a grade of C or better] or [ACT Mathematics score of 24 or better] or [New ACT Mathematics score of 25 or better] or [SAT Math Section score of 550 or better] or [Accuplacer College Mathematics score of 86 or better] or [Compass College Algebra score of 46 or better] or [Next-Generation Advanced Algebra and Functions Test of 263 or better].

Mathworks Junior Summer Math Camp – Half – Day (JSMCH)
Level 5: This level is recommended for students in grades 7 – 8. Using the Math Quest Level 5 curriculum, the course covers topics in the High School TEKS such as: logical reasoning, questioning techniques, strategies, divisibility, number theory, primes & numbers of divisors, congruence, greatest common divisor and least common multiple, algebra, sequences, summations, variable manipulation, ratio and rate applications, counting, rule of sum and rule of product, permutations and combinations, probability, geometry, areas of triangles & quadrilaterals, right triangles, scaling, and similarity.

Sekolah Pelita Harapan
Grades 7 – 8: Cambridge Lower Secondary Mathematics (0862) – Learners develop a holistic understanding of the subject, focusing on principles, patterns, systems, functions and relationships. They will become mathematically competent and fluent in computation, which they can apply to everyday situations. Learners will develop skills in: Number, Algebra, Geometry and Measure, Statistics and Probability.

Grades 9 – 10: Cambridge IGCSE International Mathematics (0607) – Cambridge IGCSE International Mathematics encourages learners to develop their mathematical ability as a key life skill, and as a strong basis for further study of mathematics or to support skills in other subjects.

B. Teaching Professional Development Activities Attended

Activity	*Entity*	*Dates*
Mathworks Master Teachers Professional Development	Texas State University	Summer 2024, 2025, 2026
Teaching Forum for MATH 1311/1315	Texas State University	Spring 2026
Teaching Forum for MATH 1300/1316	Texas State University	Fall 2025
MATH 7111, Seminar in	Texas State University	Fall 2022 – Spring 2023

Teaching Cambridge Lower Secondary Mathematics (1112) Course	Cambridge Assessment International Education	February – March 2020
One Day Education Seminar - Bible Integration to Mathematics	Association of Christian Schools International	October 2019

III. SCHOLARLY/CREATIVE

A. Publications

Gaspard, B. R., Lee, H.Y., Paoletti, T., Tarigan, S., & Ford, L. (2024). "It does show it both ways, though.": Emma's reasoning through graphing conventions. In Kosko, K. W., Caniglia, J., Courtney, S. A., Zolfaghari, M., & Morris, G. A., (Eds.) *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.* Kent State University (pp. 666-676).

Gaspard, B.R.; Lee, H.Y.; Bui, M.; Hardison, H.L.; Paoletti, T; Ford, L.; Zolt, H.; Tarigan, S. (2024). *Students' reasoning through graph conventions*. In T. Evans, O. Marmur, J. Hunter, G. Leach & J. Jhagroo (Eds.). *Proceedings of the 47th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 1). Auckland, New Zealand: PME. (p. 312).

Rygaard Gaspard, B. R., Lee, H. Y., Bui, M. T. T., Hardison, H. L., Paoletti, T., Tarigan, S. I., … Zolt, H. M. (2024). Middle School Students' Reasoning Through Graphing Conventions. In *Proceedings of the Psychology of Mathematics Education Conference (PME 47)* (Vol. 1, p. 265). Retrieved from https://www.igpme.org/wp-content/uploads/2024/07/Vol-1-PME47-01-07-2024.pdf

Zolt, H., Gaspard, B. R., Lee, H.W., Paoletti, T., Hardison, H. L., Ford, L., Tarigan, S., & Bui, M. (2024). Modeling students' strategies when creating a graph: A focus on reference frames and coordinate systems. In Kosko, K. W., Caniglia, J., Courtney, S. A., Zolfaghari, M., & Morris, G. A., (Eds.) *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Kent State University (pp. 695-701).

Zolt, H. M., Rygaard Gaspard, B. R., Lee, H. Y., Paoletti, T., Hardison, H. L., Ford, L. L., … Bui, M. T. T. (2024). Modeling students' strategies when creating a graph: A focus on reference frames and coordinate systems. In *Proceedings of the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*.

Lee, H. Y., Gaspard, B. R., Tarigan, S., & Ford, L. (July, 2025). A guiding framework for designing graphing tasks for student learning [TSG report]. The 9th ICMI-East Asia Regional Conference on Mathematics Education (EARCOME9), Siheung, Korea.

Gaspard, B. R., Lee, H. Y., Tarigan, S., Ford, L., Zolt, H., Bui, M., Hardison, H. L., & Morrell, G. (under review). A guiding framework for designing graphing tasks: An

illustration with the family frenzy task series. International Journal of Mathematical Education in Science and Technology.

B. Research Presentations

Gaspard, B. R., Lee, H.W., Paoletti, T., Tarigan, S., & Ford, L. (2024, November). *"It does show it both ways, though.": Emma's reasoning through graphing conventions.* Paper presented at the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Cleveland, Ohio.

Zolt, H., Gaspard, B. R., Lee, H.W., Paoletti, T., Hardison, H. L., Ford, L., Tarigan, S., & Bui, M. (2024, November). *Modeling students' strategies when creating a graph: A focus on reference frames and coordinate systems.* Paper presented at the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Cleveland, Ohio.

Tarigan, S.I., Kirmizi, M., Sylvester-Conrad, G., Mohammed, H., Nyakoojo, U., Gamage, D. (2024, March). *How Fractions are Introduced Around the Globe: A Comparative Textbook Analysis of Seven Countries.* Presentation at the Spring Meeting of the Texas Section of the Mathematical Association of America.

Gaspard, B. R., Tarigan, S.I., Ford, L., Lee, H.Y., (2023, October). *Designing Graphing Tasks to Access a Middle School Student's Graphical Thinking.* Poster presented at Texas State Grad Expo, San Marcos, TX.

C. Fellowships, Awards, Honors:

Doctoral Merit Fellowship, The Graduate College, Texas State University, San Marcos, TX, 2022.
Summa Cum Laude, Howard Payne University, Brownwood, TX, 2019.
Outstanding Student in Mathematics, Howard Payne University, Brownwood, TX, 2018.

D. Scholarly / Creative Grants and Contracts:

CAREER: Reframing Students' Graph Literacy with a Focus on Students' Thinking
PI: Hwa Young Lee
Source: National Science Foundation, Award No. 2239316
Role: Supported the principal investigator in collecting data, organizing data, mixing interview videos, and analyzing data. Designed research-based mathematics tasks for clinical interviews with middle school students to assess their thinking about graphs. The tasks were created using Desmos Classroom Activities, Geometer's Sketchpad, Canva, and Adobe After Effects.

TAILOR (Tracking Adaptation and Investigating Learning Outcomes for Reforming Mathematics for Life Sciences)
PI: Jennifer Czocher
Co-PI: Brendan Kelly
Source: National Science Foundation, Award No. 2417149
Role: Supported the principal investigator in administrative and logistical roles, in data collection, and data analysis.

IV. SERVICE

Student Leader (International Student Ministry), Every Nation Campus, The Springs Church, San Marcos, TX, 2023 – present.

Arena Judge for TCEA (Texas Computer Education Association) Robotics Contest, San Angelo, TX, 2019.