TEXAS STATE VITA

1. Academic/Professional Background

A. Name and Title

Name: Janet G Sipes Title: Asst Professor of Instruction

B. Educational Background

Degree	Year	University	Major	Thesis/Dissertation
PhD	2019	Arizona State University	RUME (Research in Undergraduate Mathematics Education)	Undergraduate Students' Conceptions of Multiple Analytic Representations of Systems (of Equations)
ABD	2006	University of Missouri--Columbia	Mathematics (Emphasis: Analysis & Algebra)	
MS	2003	Texas Woman's University	Math/Math Teaching	

C. University Experience

Texas State University, Asst Professor of Instruction, August 2025-Present
Sam Houston State University, Visiting Assistant Professor of Mathematics, 2023-2025
University of Arizona, Instructor of Mathematics, 2020-2023
Arizona State University, Graduate Teaching & Research Assistant, 2014-2019
University of Southern Indiana, Instructor of Mathematics (6 years)

II. TEACHING

A. Teaching Honors and Awards:

2020 Outstanding Math Faculty, Eller College of Management, University of Arizona

B. Courses Taught:

Elementary Functions, Calculus Concepts for Business, Calculus I, Finite Mathematics, Precalculus, Topics in Mathematics, Survey of Calculus, College Algebra, Support for College Algebra, Understanding Elementary Mathematics for Elementary Teachers, Essentials of Calculus, Exploring and Understanding Patterns, Functions, and Modeling for Elementary Teachers

C. Directed Student Learning (i.e. theses, dissertations, exit committees, etc.):

Honors Projects Supervised

Calculus Using Artificial Intelligence, 2024
Comparing Analytic Representations of Derivative Functions, 2024

D. Courses Prepared and Curriculum Development:

Work in Progress: Function-forward curricular materials extending through College Algebra, Trigonometry, Precalculus, Calculus I, II, & III. I imagine set of coherent, function-focused curricular materials.

G. Teaching Professional Development Activities Attended

Workshop: *Teaching-Focused Faculty as Change Agents*, 2024 Critical Issues in Mathematics Education, SLMath Institute, Berkeley, CA

Workshop: *Teaching & Working with College Students with Autism*, Sam Houston State University, April 2024

COMMIT Network Book Club: (**COM**munities for **M**athematics **I**nquiry in **T**eaching), *Building Thinking Classrooms in Mathematics* by Peter Liljedahl, Southern Arizona Chapter, Summer 2021

Faculty Book Club: R*adical Hope: A Teaching Manifesto by Kevin M Gannon*, University of Arizona, Summer 2020.

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

3. Conference Proceedings:

a. Refereed Conference Proceedings:

Mauntel, Matthew, **Janet Sipes**, Michelle Zandieh, David Plaxco, and Benjamin Levine, "Let's see' – Students play *Vector Unknown*, an inquiry-oriented linear algebra digital game," *in* Proceedings of the 22nd Annual Conference on Research in Undergraduate Mathematics Education, Alan Weinberg, Deborah Moore-Russo, Hortensia Soto, and Mark Wawro, eds., pp. 959–965, Oklahoma City, OK, 2019.

Sipes, Janet. "What Happened to the Vector?": Felix's Emerging Conception of Translations," in *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education*, edited by S. S. Karunakaran, Z. Reed, and A. Higgins, pp. 547–554 , Boston, MA, February 27–29, 2020.

Sipes, Janet. "The Theory of Quantitative Systems: Deconstructing 'Symbolic Algebra' to Understand Challenges in Linear Algebra Courses," in *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education*, edited by S. S. Karunakaran, Z. Reed, and A. Higgins, pp. 707–714, Boston, MA, February 27–29, 2020.

10. Other Works in Print:

Assisted with identifying and organizing the set of studies for meta-analysis:

Stewart, Susan, Christine Andrews-Larson, and Michelle Zandieh, "Linear algebra teaching and learning: themes from recent research and evolving research priorities," *ZDM—The International Journal on Mathematics Education* **51** (2019), 1017–1030.

B. Works Not in Print:

1. Papers Presented at Professional Meetings:

Poster: *Undergraduate Students' Conceptions of Mathematical Representations*.
Presented at the Institute for Social Science Research (ISSR), Arizona State University, Tempe, AZ, November 2019.

IV. SERVICE

A. Institutional

2. College:

Founding Committee Member, GoSTEM!
University of Southern Indiana

3. Department/School:

Colloquium Speaker: *RUME as a Field of Academic Inquiry*
Sam Houston State University Mathematics, November 2023

Organizer, Mathematics Instruction Colloquium
University of Arizona, Tucson, AZ, 2021–2022

Presenter: *Building Thinking Classrooms in Mathematics*
University of Arizona Mathematics Instruction Colloquium, October 2021

B. Professional:

Participant: National Pedagogical Initiatives in Linear Algebra (NSF Funded Workshop)
University of Oklahoma, October 2018

C. Community:

Interviewer, Medical School Applicants
Sam Houston State University College of Osteopathic Medicine
In person (August 2024) and virtual (January 2025)

G. Service Professional Development Activities Attended:

COM Interviewer Training
Completed training for interviewing prospective medical students
Sam Houston State University College of Osteopathic Medicine, May 2024