

## EDUCATION and EMPLOYMENT

2018 - Present Assistant Professor, Angelo State University  
 2016 - 2018 Assistant Professor, Saint Norbert College.  
 2011 - 2016 Ph.D. in Mathematics, Louisiana State University. Advisor, James Oxley.  
 2009 - 2011 MS in Mathematics, Louisiana State University.  
 2003 - 2008 BS in Mathematics, Southeastern Louisiana University.

## TEACHING EXPERIENCE (TEACHER OF RECORD)

*Matroid Packages in SageMath (research course)* — ASU, F21  
*Special Cases of Barnette's Conjecture (research course)* — ASU, S21  
*Unsolved Problems in Number Theory (reading course)* — ASU, S21  
*Discrete Mathematics I* — ASU, S21  
*Discrete Mathematics II* — ASU, F20  
*Introduction to Abstract Mathematics* — ASU, S20  
*Minimum Crossing Number of Restricted Embeddings of Planar Graphs (research course)* — ASU, F20, S20  
*Real Analysis* — ASU, S22, S21, F19  
*Probability and Actuarial Mathematics* — ASU, F20, F19  
*Algebraic Topology (reading course)* — ASU, S19  
*Calculus III* — ASU, Spring 2019, Fall 2018  
*College Algebra* — ASU, F21 (two sections), F20, S20, S19 (two sections), F18 (two sections)  
*Finite Mathematics* — ASU, F19, S19, F18  
*Finite Mathematics (Intensive)* — ASU, S22, F21, S21, F20, S20, F19  
*Modern Geometry* — SNC, S18  
*Principles of Geometry* (a course for Math Educators) — SNC, F17  
*Advanced Foundations of Mathematics* — SNC, F17  
*Numbers and Operations* (a course for Math Educators) — SNC, S18 and S17  
*Introductory Statistics for Business* — SNC, S18, F17, S17, F16  
*Calculus and Analytic Geometry I* — SNC, S17 and F16 (two sections)  
*Analytic Geometry and Calculus I* — LSU, F15  
*Geometry, Reasoning, and Measurement* (a course for Math Educators) — LSU, S15  
*Measurement: Proportional and Algebraic Reasoning* (a course for Math Educators) — LSU, F14, F13

## AWARDS

*Angelo State University President's Award for Faculty Excellence in Research (Nominee), 2021*  
*Angelo State University President's Award for Faculty Excellence in Teaching (Nominee), 2020*  
*Mathematics Association of America Project NExT Fellow, 2017-2018*  
*Louisiana State University Alumni Association Teaching Assistant Award, 2015*  
*David Oxley Graduate Student Teaching Award, 2014*  
*Louisiana State University Mathematics Department Certificate of Teaching Excellence, 2013*

## GRANTS

*Developing and Implementing Active Learning Strategies in Finite Mathematics (MATH 1324), 2019-2020*

## PUBLICATIONS

*On matroids having every element in a 4-cocircuit and every pair of elements in a 4-circuit* (with J. Oxley, C. Semple, and G. Whittle), *Advances of Applied Mathematics*, Volume 105, April 2019  
*Unbreakable Matroids*, Submitted to *Advances in Applied Mathematics*

## RESEARCH STUDENTS

### Implementing Binary Minor Case-Check Routines in SageMath

\_\_\_\_\_ Sasha Montag and Ian Sokolnicki, in progress

### Counting Barrycades

\_\_\_\_\_ Jacob Whitaker, in progress

### Special Cases of Barnette's Conjecture

\_\_\_\_\_ Tyler Stokes and Jacob Whitaker, presented at the ASU Symposium.

### Counting Crossings in Graphs on Grids

\_\_\_\_\_ Thi Thu Huong Vo, presented at the Rose-Hulman undergraduate research conference and ASU Symposium.

### Implementing Bixby and Wagner's Almost-Linear Time Graph Realization Algorithm

\_\_\_\_\_ Neil Thiessen, honors thesis at ASU.

### Probabilities of Rank-3 Simple Matroids

\_\_\_\_\_ Bao Van, presented at MAA MathFest 2018, recognized with the national Pi Mu Epsilon speaker award.

## PRESENTATIONS

### Non-Euclidean Geometry

\_\_\_\_\_ Angelo State University Student Mathematics Seminar, September 2021

### Non-Euclidean Geometry

\_\_\_\_\_ Angelo State University Student Mathematics Seminar, February 2021

### A Little Bit of Mathe-magics

\_\_\_\_\_ Angelo State University Student Mathematics Seminar, October 2020

### Non-Euclidean Geometry

\_\_\_\_\_ Angelo State University Student Mathematics Seminar, September 2019

### Matroids with many small circuits and cocircuits

\_\_\_\_\_ Oxley65 Matroid and Graph Conference, Louisiana State University, July 2019

### How to Succeed in College

\_\_\_\_\_ Angelo State University True Blue Friday, April 2021, April 2020, April 2019

### A Pi Day Presentation in Three Parts

\_\_\_\_\_ Angelo State University Student MAA Meeting, March 2019

### The Putnam Exam and an Introduction to Number Theory

\_\_\_\_\_ Angelo State University Student MAA Meeting, February 2019

### Introduction to Ramsey Theory

\_\_\_\_\_ Angelo State University Student Mathematics Seminar, October 2018

### Matroids with many small circuits and cocircuits

\_\_\_\_\_ AMS Southeastern Sectional Meeting, April 2018

### Music and Mathematics

\_\_\_\_\_ Saint Norbert College course on Fine Arts Growth in Young Children, Spring 2017 and Fall 2017

### A (mathematical) History of Coloring

\_\_\_\_\_ Saint Norbert College Mathematics Colloquium Series, December 2016

### Matroids with many small circuits and many small cocircuits

\_\_\_\_\_ AMS/MAA Joint Mathematics Meeting, January 2016

### Graphics in LaTeX: An Introduction to TikZ

\_\_\_\_\_ MathBytes Technology Colloquium, Louisiana State University, March 2015

### Matroids with many small circuits and many small cocircuits

\_\_\_\_\_ AMS/MAA Joint Mathematics Meeting, January 2015

### Unbreakable Matroids

\_\_\_\_\_ 2014 International Workshop on Structure in Graphs and Matroids, Princeton University, July 2014

### Remote Access and the Command Line

MathBytes Technology Colloquium, Louisiana State University, March 2014

### Unbreakable Matroids

AMS Sectional Meeting, University of Mississippi, March 2013

### Unbreakable Matroids

Combinatorics Colloquium, Louisiana State University, March 2013

### An Introduction to Frame Matroids

Student Combinatorics Seminar, Louisiana State University, February 2013

### Graph Coloring and List Coloring

Summer GEAUX Program, Louisiana State University, August 2010

### Graph Coloring and List Coloring

Communicating Mathematics Seminar, Louisiana State University, May 2010

## SERVICE

**ASU Holland Symposium Committee**, Member — Spring 2021 - present

**ASU Pi Mu Epsilon Mathematics Honor Society**, Advisor — Fall 2019 - present

**ASU Faculty Research Enhancement Program**, Grant Reviewer — Spring 2020

**ASU MAA Student Chapter**, Advisor — Fall 2019 - present

**ASU Math Problem Solving Seminar**, Organizer and facilitator — Fall 2019 - present

**ASU Math Challenge of the Month**, Organizer — Spring 2018 - Fall 2019

**ASU Retention Liason** — Spring 2018 - present

**ASU True Blue Friday**, Opening Speaker — Spring 2019, Spring 2020

**SNC Admissions Committee**, Member — Fall 2017 - Spring 2018

**SNC Dance Marathon**, Volunteer — Fall 2017

**SNC Mathematics Discipline Hiring Committee**, Member — Fall 2017 - Spring 2018

**SNC Physics Discipline Hiring Committee**, Member — Fall 2017

**SNC Pi Mu Epsilon Undergraduate Mathematics Research Conference**, Organizer — Fall 2017

**SNC Pie-A-Professor**, Volunteer — Spring 2017

**Delaney Writing Competition**, Judge — Spring 2017

**SNC Mathematics Discipline Hiring Committee**, Member — Fall 2016 - Spring 2017

**LSU Student Combinatorics Seminar**, Organizer — Spring 2013 - Fall 2016

**LSU MathBytes Technology Colloquium**, Organizer — Fall 2013 - Spring 2015

**Eureka Math/EngageNY**, Mathematics Curriculum Editor — Fall 2012 - Summer 2013

**LSU GEAUX Committee**, Member — Summer 2010, Summer 2011

## OTHER TEACHING EXPERIENCE

**Grader**, *Combinatorial Theory* (graduate-level course) — LSU, Spring 2013

**Undergraduate Mentor**, SMILE at LSU — Summer 2011, Summer 2012 (an REU)

**Graduate Assistant**, Singapore Math Project — LSU, Fall 2010 - Spring 2012

**Tutor**, Louisiana State University Math Lab — Spring 2010

**Recitation Leader**, *Calculus with Business and Economic Applications* — LSU, Fall 2009

**Teacher**, Southside Elementary School — Spring 2009

**Tutor**, Southeastern Louisiana University Math Lab — Fall 2004 - Fall 2009