Amy Main

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Education

- Master of Science in Mathematics, Texas A&M University, 1995
- Bachelor of Science in Applied Mathematics, Texas A&M University, 1992
- Associate of Science in Mathematics, Northeast Texas Community College, 1990

Academic Experience

- 2025 – present: Senior Lecturer of Mathematics; Department of Computational, Engineering, and Mathematical Science, Texas A&M University-San Antonio
- 2019 – 2025: Lecturer of Mathematics; Department of Computational, Engineering, and Mathematical Science, Texas A&M University-San Antonio
- 2017 – 2019: Adjunct Instructor; Department of Computational, Engineering, and Mathematical Science, Texas A&M University-San Antonio
- 2007 – 2019: Adjunct Instructor; Department of Mathematics, Northeast Lakeview College
- 2005 – 2010: Instructor of Mathematics; Concordia University, San Antonio Campus
- 1995 – 2005: Instructor of Mathematics; Blinn College, Bryan Campus
- 1995 – 1999: Lecturer, Department of Mathematics, Texas A&M University
- 1993 – 1995: Graduate Teaching Assistant, Department of Mathematics, Texas A&M University

Courses Taught

At Texas A&M University-San Antonio

- Math1314-College Algebra F17, Sp18, F18, Sp20, F20, Sp23, F23 (online), Sp24 (online), F24 (online), Sp25 (online), F25 (online).
- Math1314-College Algebra Coreq. Sp21, F21, Sp22, Sum22 (online), F23, Sp24, Sum24 (online), F24, Sp25
- Math1324-Business Mathematics I F22, F23 (online), F24 (F2F/online), F25
- Math1324-Business Mathematics I Coreq F21, F22
- Math1325-Business Mathematics II Sp20, Sp21, Sp25, Sp26
- Math1342-Introduction to Statistics, Sp19, Sp20, Sp21, Sum21, Sum25, F25 (online)
- Math1342-Introduction to Statistics Coreq F22, F25

- Math1350-Fundamental of Math I F25
- Math1351-Fundamental of Math II Sp18, F18, Sp19, Sp26
- Math2312-Pre-Calculus F19, F22 (hybrid), F23 (F2F/hybrid)
- Math2313-Calculus I F24
- Math3360-Moderm Geometry Sp23, Sp24, Sp25, Sp26
- Recitation for various courses F17, Sp18, F19, F20, Sp21, F21, F22, Sp23, F23, Sp24, F24, Sp25, Sum25, F25, Sp26
- Stem4101 Jaguar Tracks IV F20, Sp21
- Math Accelerate (formerly called Math Jaguar Bootcamp), a self-pace student refresher course, Sum22 (first time offered), Sum23, Sum24, Sum25

At Northeast Lakeview College

- Math 0300-Basic Mathematics
- Math 0301-Introduction to Algebra
- Math 0302-Elementary Algebra
- Math 0303-Intermediate Algebra
- Math 0310-Elementary Algebra
- Math 0320-Intermediate Algebra
- Math 1314-College Algebra
- Math 1324-Math for Business & Social Science
- Math 1325-Calculus for Business & Social Science
- Math 1350-Fundamentals of Math I
- Math 1351-Fundamentals of Math II
- Math1414-College Algebra

At Concordia University

- Math 1330-Applied Finite Mathematics
- Math 2301-Introduction to Statistics

At Blinn College

- Math 0312-Intermediate Algebra
- Math 1314-College Algebra
- Math 1324-Analysis I
- Math 1325-Analysis II
- Math 2313-Calculus for Life Science

At Texas A&M University

- Math 102-Algebra
- Math 131-Mathematical Concepts-Calculus
- Math 141-Finite Mathematics
- Math 142-Business Calculus

- Math 150-Pre-Calculus
- Math 151 Engineering Mathematics I
- Math 166-Topics in Contemporary Mathematics II

Professional Development

- Participated in professional development with Corequisite Fellows Program, Jan 2025-Dec 2025.
- Earned Certificate of Completion for Corequisite Fellows Faculty Training Session, Fall 2024-Spring 2025
- Attended and participated in Dana Center workshop at TAMUSA, Dec 2024
- Earned Certificate of Completion for professional development during Spring 2024 Faculty Training Sessions.
- Earned Certificate of Completion for ACUE Effective Teaching Practices Framework course, Fall 2023 – Spring 2024
- Attended and participated in WAC workshop then completed the application to be approved Math 3360: Modern Geometry as a Writing Intentional Course, May 2024.
- Participated & attended ACUE promoting Active Learning microcrediential course, Feb 2023
- Participated and attended Post-Secondary Instructor Micro-Credential (PIM) Professional Development Opportunity offered by Texas Higher Education Coordinating Board (THECB) through Texas State University. Fall 2022
- Attended monthly corequisite sessions and shared & presented ideas for two sessions: games & activities and Blackboard organization, Spring 2022.
- Attended and completed a Professional Learning Certificate FOCI: Focused Online Collaborative Interactions, Series 7: Strengthening Conceptual Understanding in Introductory Statistics provided by The Charles A. Dana Center, The University of Texas at Austin, Fall 2021

Departmental Activities

- Hosted guest speaker, Mustafijur Rahman, who shared about exploring a mathematical model that helps explain movement and how random events affect populations & predict long-term behavior, Oct 2026
- Helped with Credit Recover Jan 2025, May 2025 & Jan 2026.
- Hosted guest speaker, David Manuel, who shared how to solve the Rubik Cube using math for Math Club, April 2025
- Advisor to Math Club. Trained in learning JagSync, provided activities for the biweekly meetings, supported bringing guest speakers to campus, encouraged students to experience mathematics. Fall 2023 – present.
- Mathematics Auxiliary Support Coordinator, duties include being a liaison between the math program and ALC, helping the tutors and SI by provide content training & answering question; gather data to provide regular feedback to mathematic faculty on the trends and issues; Fall 2022-current

- Provided monthly reports to Mathematics Program regarding the Academic Learning Center and tutoring/SI. Fall 2022-present
- Met monthly to work collaboratively with ALC staff to answer questions, communicate, and encourage possible improvement. Spring 2022-present
- Helped with NSO Multiple Measures placement to get students registered in the correct math course, Summer 2022, Summer 2023, Summer 2024 & Summer 2025
- Hosted guest speaker, Chris Goff, who shared about the Euler Archive, an online repository of the publications of prolific Swiss polymath Leonard Euler for Math Club, October 204
- Observed my colleague in Mathematics, giving peer feedback about their classroom instruction and online resources, Spring 2024-present.
- Hosted guest speaker, Charles Stewart, who shared his research and work done with phased array for Math Club, April 2024
- Served on Business Math (Math 1324) Committee to pick textbook and update content. Spring 2024.
- Participated, collected & delivered gifts from the mathematics department for the Christmas Adopt-a-Family; Dec. 2020, Dec 2022, Dec 2023, Dec 2024
- Helped with development of the Pre-Calculus (Math 2312) common final exam & support materials to help unify this course to maintain consistency. Contributed to the rubric of final. Provided the answer key for the sample final and a video explaining sample final. Added new resources to Math 2312 shell in Blackboard. Some material was created new, while some material was provided to give ideas on how to teach material. Fall 2022, May 2023, Fall 2023
- Member of Interdisciplinary Support Meetings. Participated in brainstorming in ways to get students involved. Fall 2023-present
- Mentored new and existing employees in the Mathematics Program often sharing personal material and resources. Attended a colleague's lecture and provided constructive feedback. Fall 2022-present
- Coordinated and communicated with colleagues of Math 1324 to develop CCER assessment then created the assignment along with the rubric for report. Also, contributed to the development of the Math 1342 CCER assessment. Collaborated with entry-level director to ensure the pilot course in Math 1342 is to standard of current textbook. Collaborated with entry-level director to ensure the material covered in Math 1324 is appropriate prerequisite for the business department. Reviewed textbooks and shared opinions on which one could meet those requirements. Fall 2022
- Nominated students for Rising Star Award, participated in discussion for organizing the event, and attended the Award Presentation, Apr/May 2022.
- Attended & participated in DEAC Advisory meetings, Spring-Fall 2022
- Helped screen departmental Common Final for College Algebra and provided feedback, Jan/Feb 2022
- Helped with development of the college algebra curriculum, common final exam & support materials, May 2021
- Event Supervisor for Science Olympiad, Texas A&M-San Antonio University, March 2020
- GEC committee, Texas A&M-San Antonio University, Fall 2019

- Textbook Committee for the Department of Mathematics, Texas A&M-San Antonio University, Fall 2019
- CAT Team member, Concordia University, 2006
- Blinn Professional Association, Member 1999-2005, Secretary 2001-2002
- Blinn College Honors Program, Mentor Fall 2004
- Developed new course at Blinn specifically to transfer as Texas A&M's Math 131 Fall 2004
- Wrote pre and post-test for various courses at Blinn College
- Developed calculator worksheets to cover Learning Outcomes for College Algebra, Finite Math & Business Calculus at Blinn College.
- On multiple textbook committees to select textbook for courses at Blinn College.
- Helped coordinate pop-luck social each year at Blinn College.

Hiring Committees

- Member of Hiring Committee to find three Lecturer positions, followed by 2 additional one-year positions. Spring & Summer 2025
- Member of Hiring Committee to find five positions, Instructional Assistant Professors, Lecturers and Dual Lecturer. Activity included screening candidates, having on-line interviews and on-campus teaching presentations and question/answer session, Spring-Summer 2024
- Member of Hiring Committee to find SI leaders. Activity included on-line interviews and ranking the candidates, May 2024
- Member of Hiring Committee to find SI leaders. Activity included on-line interviews and ranking the candidates, Dec 2023
- Member of Hiring Committee to find two Instructional Assistant Professors. Activity included screening candidates, having on-line interviews and on-campus teaching presentations and question/answer session, Apr-July 2023

Honors and Awards

- Texas A&M-San Antonio College of Arts & Sciences 2020 Excellence in Teaching Award in the Adjunct Faculty category, June 2021
- Who's Who Among American Teacher's, 1997 & 2002
- Outstanding Teaching Assistant Award, May 1995

Community Services

- Sunday School Teacher for middle school, St. Sophia Greek Orthodox Church, San Antonio, TX, 2014-present
- Audit Committee for St. Sophia Greek Orthodox Church, San Antonio, TX, for 2 years of treasurer's reports, April 2023.
- Free Math Tutor, multi-grade level, answer questions as needed, friends & family, 2010-present

- PTA member 2009 – 2019,
    - Art Smart Volunteer, 2017-2019
    - Treasure, 2015-16
    - Lifetime Award Coordinator, 2012-2017
    - Box Top Coordinator, 2010-2015
    - Auditor, 2013 & 2014
    - Fiesta volunteer, 2010-2014
- Vacation Bible School
    - Acting Director, St. Sophia's Greek Orthodox Church, 2014
    - Director, St. Ephraim Orthodox Church, 2009 & 2010
    - Director, All Saints Anglican Church, 2007 & 2008
    - Volunteer, Northridge Park Baptist Church 2006-08
    - Volunteer, St. David's Episcopal Church 2006
- Directory Photographer, St. Sophia's Greek Orthodox Church, 2013
- SEWS, St. Ephraim's Women's Committee, member 2008-2011
- Bishop's Dinner Coordinator, St. Ephraim Orthodox Church, 2009
- Greeter, All Saints Anglican Church, 2007-08
- Women of Faith coordinator, All Saints Anglican Church, 2007
- Fall Fair, All Saints Anglican Church, 2007
- Sunday School Teacher, All Saints Anglican Church, 2007-08
- Piano Accompaniment, Our Savior's Lutheran Church, 2002-2005
- Piano Accompaniment, Lone Star Baptist Church, 1985-1990

Presentations

- "Cryptography Murder Mystery", Pre-freshman Engineering Program (PREP), June 2024
- "Math & Art, Is there a connection?", 5th Coast Bend Mathematics & Statistics Conference, April 2020 cancelled due to COVID
- "Math & Reading: How you can improve both at the elementary level", Faculty Meeting at Regency Place Elementary, Jan 2013

Additional Skills

- Excellent with LaTeX, Word, & Excel.

Teaching Philosophy

As long as I can remember, I have had a passion for mathematics. In high school, I took five years of math in just four years while also servicing as an officer in the math club and participating in number sense and the calculator team. I remember explaining how to work problems to my friends. Mathematics just made sense to me even when I had not been explained how to work the problem myself. As my

studies advanced and math became more difficult, this challenge only made it more enjoyable even when I was frustrated--I had to figure the problem out. Math was no longer a trivial calculation but rather an in-depth study requiring dedication and ingenuity. This passion and enthusiasm, and my desire to share it, have guided my admiration of the subject and fueled my desire to become a college math instructor.

Throughout my teaching career, I have had the opportunity to interact with students at all stages of life beginning with individual instruction through tutoring one-on-one and evolving into a classroom setting teaching classes ranging in size from 3 to 150 students. The insights I gained into how different students learn have helped make me the teacher that I am today. And with the Covid-19 pandemic, I was able to adjust my teaching delivery through Blackboard Collaborate & WebEx, however, I am still able to interact with my students and encourage them to ask questions and help them to see the insight to the wonderful world of mathematics.

In my experience, the three biggest obstacles to learning are a student's belief that math is boring, math is impossible, and math is irrelevant. Therefore, my teaching philosophy is threefold.

Make math interesting. In order for a student to succeed in any subject, that subject must engage that individual. Mathematics is too often taught as a list of formulas with a seemingly lack of connection between topics. I bring excitement to my lectures, using energy and enthusiasm to teach ideas while guiding students along a path where each new concept is a natural consequence of the previous topic and a natural precursor to the following.

Make math possible. I must admit that math is not always easy. But when presented in the right manner, even the most difficult of subjects can be understood. By learning theorems well, sharing examples that illustrate concepts, and supervising in-class activities that support the topics, students can tackle any problem. I remind my students that while a problem may be long, they have all the tools needed to solve it even if they have to revert to rules that are simpler.

Make math relevant. Perhaps the most difficult challenge to overcome is that of student apathy toward the subject of math. With each student coming from different backgrounds, abilities and majors, it is sometimes difficult to cover a problem that would seem relevant to that person individually especially beyond the course final. To respond, I stress that problem-solving extends to all aspects of life. The subject of mathematics gives that person the ability to think rationally, to

clearly organize ideas, to see the big picture and to accurately apply concepts. These are traits that will always have a practical application.

But perhaps more importantly, mathematics is beautiful. A well-constructed proof, a simple trick to solve a problem, this is the beauty of mathematics. While there is no practical application of the Mona Lisa or other great artworks, no one would detract from the worth of these masterpieces. In the same way, mathematics can be viewed as an art form, a majestic work worthy of admiration. If the student sees math as not only a means to an end but an end in itself, they develop respect and admiration for the subject.