ANDRE ROUHANI

Graduate Teaching Associate

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EDUCATION

BS   Mathematics, Secondary Education, Arizona State University, 2017
    Magna Cum Laude

BA   Public Health Studies, The Johns Hopkins University, 2012
    Concentration in Humanitarian Assistance, One year of graduate coursework at
    The Johns Hopkins Bloomberg School of Public Health, 2012

PhD   (in progress) Mathematics Education, Arizona State University, *anticipated 2026*

MA   (in progress) Mathematics, Arizona State University, *anticipated 2024*

MA   (in progress) Mathematics Education, Arizona State University, *anticipated 2023*

ACADEMIC POSITIONS

2021 – Present   Arizona State University, Graduate Teaching Associate, School of
                                Mathematical and Statistical sciences

POSTSECONDARY & SECONDARY TEACHING

Arizona State University

MAT 170   Precalculus (Pathways Curriculum)—Instructor (F 2021, S 2022)

MAT 208   Discrete Math for Secondary Educators—Co-Instructor (S 2022)

Desert Mountain High School, Scottsdale, AZ (2018-2021)

Algebra 2	On-track course for 11th or advanced 10th grade students (Pathways Curriculum)
Precalculus	On-track course for 12th or advanced 11th grade students (Pathways Curriculum)
IB Math	"Analysis & Approaches Higher Level Year 1"—survey of topics in number theory, combinatorics, calculus, probability and statistics, and geometry (trigonometry and vectors)
Calculus 3	Multivariable vector calculus for highly advanced high school students beyond the AP / IB courses (one semester course). Strong conceptual orientation and emphasis on development of intuition through geometrical and physical reasoning. Heavy visualization component. Taught in collaboration with Mark Ashbrook of ASU using his materials and approach. This course was the first half of a one-year high school dual-enrollment course with Scottsdale Community College.
Differential Equations	Standard introductory content with emphasis on linear second order ordinary differential equations, including the Laplace transform (one semester course). This course was the second half of a one-year high school dual-enrollment course with Scottsdale Community College, AZ.

BASIS Phoenix (Secondary), Phoenix, AZ (2017-2018; instructor of record during student teaching)

Algebra 2	8th grade course in algebra
Precalculus	Offered to 9-11th graders
Biology	8th grade course in general biology

ARTICLES IN REFEREED JOURNALS

1. [none yet]

ARTICLES IN REFEREED CONFERENCE PROCEEDINGS

1. **Rouhani, A.**, & Mirin, A. (2022 in press). Proof Without Claim: Poster Proposal. *Proceedings of the Conference for Research in Undergraduate Mathematics Education*. Boston, MA.

PRESENTATIONS

Invited Talks

1. [none yet]

National & International Conference Presentations

1. [none yet]

Regional Conference & Seminar Presentations

1. **Rouhani, A.**, & Mirin, A. (2021). Proof Without Claim: Preliminary Research Proposal. *Northeastern Conference on Research in Undergraduate Mathematics Education*. Online.

Institutional Presentations

1. [none yet]

SCHOLARSHIPS, AWARDS, & HONORS

ASU Teaching Associate Funding
School of Mathematical and Statistical Sciences, F 2021—S 2026. Amount: tuition coverage, health insurance, and ~$20,000 stipend yearly.

GRANTS

ASU Summer Research Block Grant
(pending approval and availability of funds) School of Mathematical and Statistical Sciences, Summer 2022. Amount: $XXXX

SKILLS & TRAINING

Software Experience

Mathematics: LaTeX, MATLAB

Course Management: Canvas, MS Teams, G Suite, Microsoft Office (& digital inking), IMathAS

Teaching & Learning: GeoGebra, Graphing Calculator by Pacific Tech

Professional Development

- Teaching in Undergraduate Mathematics Education Seminar (F 2021- S 2022)
  - o Pre-Calculus Professional Development Participant—Director: Marilyn Carlson
- Workshop leader for Algebra 2 teacher training in Scottsdale Unified School District (SUSD)
  - o Supported by Alan O'Bryan from Cosma Learning
  - o Facilitated two workshops: one with Alan O'Bryan, another alone
- While at SUSD as a teacher, I hosted various professional development seminars on mathematics, instructional design, technology integration, learning management systems, Microsoft products, and digital inking

REVIEWER FOR CONFERENCE PROCEEDINGS

- North American Chapter of the International Group for the Psychology of Mathematics Education—PME-NA

EXTERNAL REVIEWER FOR JOURNALS

- [none yet]

SUPERVISION

- Arizona State University Barrett, The Honors College: Honors Enrichment Contract *Faculty Mentor*.
  - o Supervised honors students' successful completement of an honors project in MAT 170: Precalculus.
  - o Students supported to complete entire module of investigations and prepare 15-minute lesson on problem of their choice, emblematic of key ideas and ways of thinking to be presented in the last week of classes.
    - Fall 2021: Ty Radford (Polar Coordinates)
    - Spring 2022: Aileen Hammer (Polar Coordinates) & Taryn Castaneda (Sequences and Series)

LOCAL LEADERSHIP & SERVICE

- Mentee in Arizona State University School of Mathematical and Statistical Sciences graduate student *peer mentorship program*
    - Intention to mentor other, newer graduate students in coming years
- *RUME V Committee Member and Cohort Representative*
    - ASU has a Research in Undergraduate Mathematics Education (RUME) sequence of courses: RUME I-IV
    - RUME V is our graduate student and faculty community organization
    - Planned and carried out events that support graduate student career development, community building, and relationship-building with faculty
- Every semester I try to *support international students* (learning about culture, adjusting to ASU, and finding friends) and *women of color in mathematics* (study groups, tutoring)
    - Fall 2021
        - Befriending international students, taking them out to eat and helping them make friends. Formed study group of women in color in mathematics and supported them in getting them caught up and explaining things that the professor glossed over—all but one of the four passed Combinatorics
    - Spring 2022
        - Special small group tutoring with two women of color in my precalculus course—one of them reached out expressing a desire to overcome mathematics as a challenge and tragedy in her life, and I hard to respond.
        - Supporting a visiting scholar from Algeria with getting his visa and documents in order.
- *Member of the Local Spiritual Assembly of the [Baha'is](#) of Tempe, Arizona*. Currently serving a one-year term from April 2021 – April 2022. I have served as a member of this nine-member elected body since 2019. Currently serving as its *Secretary*, tasked with facilitating all communication both within the Tempe Baha'i community and outside it, including communication with other institutions of society. The Local Spiritual Assembly tends to the spiritual and material health and well-being of all the Baha'is in a locality and extends this care outward to the locality at large.

NATIONAL LEADERSHIP & SERVICE

- Revised Calculus Concept Inventory expert panel, January 2020
    - Selected as one of two high school mathematics instructors from across the country at the recommendation of Pat Thompson
    - Organized by Barb Moskal and Jerry Dwyer at Texas Tech University

PROFESSIONAL AND ACADEMIC AFFILIATIONS

- (*forthcoming*) Mathematical Association of America (MAA) and the Special Interest Group of the MAA on Research in Undergraduate Mathematics Education

PROFESSIONAL REFERENCES

- Patrick W. Thompson, Ed.D. Professor Emeritus of Mathematics Education
  - School of Mathematical and Statistical Sciences, Arizona State University, AZ 85287, pat@pat.thompson.net
- Marilyn Carlson, Ph.D. Professor of Mathematics Education
  - School of Mathematical and Statistical Sciences, Arizona State University, AZ 85287, marilyn.carlson@asu.edu
- Zilin Jiang, Ph.D. Assistant Professor of Mathematics
  - School of Mathematical and Statistical Sciences // School of Computing and Augmented Intelligence Arizona State University, AZ, zilinj@asu.edu
- Dov Zaskis, Ph.D. Assistant Professor of Mathematics Education
  - School of Mathematical and Statistical Sciences, Arizona State University, AZ 85287, dzazkis@asu.edu
- Alan O'Bryan, Ph.D.
  - Cosma Learning & Rational Reasoning. alan@cosmalearning.com
- Mark Ashbrook, MS. Principal Lecturer
  - School of Mathematical and Statistical Sciences, Arizona State University, AZ 85287-1804,mark.a@asu.edu
- Kyeong Hah Roh, Ph.D. Associate Professor of Mathematics Education
  - School of Mathematical and Statistical Sciences, Arizona State University, AZ 85287,khroh@asu.edu