

**Carolyn E. Luna**  
**University of Texas at San Antonio**  
**College of Science, Department of Mathematics**  
**Flawn Science Building 4.01.54**  
**One UTSA Circle, San Antonio, TX 78249**  
**No phone available**  
**E-mail: [carolyn.luna@utsa.edu](mailto:carolyn.luna@utsa.edu)**

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## **Educational Background**

The University of Texas at San Antonio	San Antonio, TX M.A. 2005	Mathematics, Curriculum and Instruction
The George Washington University	Washington, D.C. B.S. 1995	Environmental Science, Biology, Philosophy

## **Professional Employment History**

University of Texas at San Antonio	Senior Lecturer	January 2013 – Present
The Southwest School of Art	Lecturer	January 2016 – December 2019
The Alamo Colleges	Adjunct Faculty	August 2006 – May 2013
John F. Kennedy High School	Mathematics Teacher	August 2005 – June 2006

## **Awards and Honors**

### *TxMI Fellow 2021-2022*

One of only two instructors from the College of Sciences selected to work collaboratively with University of Texas, Austin faculty on growth mindset and belonging interventions in classroom settings. Findings are part of a larger data set used for current research on effective interventions to improve student retention and achievement in large enrollment classes with underrepresented student populations.

### *Norman and Ray Baird Excellence in Education Endowed Faculty Award Recipient 2018*

Awarded by the College of Sciences for changes implemented to the Algebra curriculum used in all MAT 1043 courses for non-science majors at the University of Texas San Antonio. Changes to the existing curriculum included the provision for annual training in pedagogical methods for instructors using classroom materials which support equity in mathematics instruction for all MAT 1043 Algebra students at UTSA.

### *Saint Gerard Catholic High School Keynote Speaker, May 10, 2018*

Selected to be the Keynote Speaker for the graduating class of Saint Gerard Catholic High School about their accomplishments and future endeavors in the sciences.

## **Teaching Activities**

- MAT 1093 – Precalculus (undergraduate)
- CSS 1202 – College Success Seminar (undergraduate)
- MAT 1043 – Introduction to Mathematics (undergraduate)
- MAT 1053 – College Algebra for Business (undergraduate)
- MAT 1073 – College Algebra for Scientists and Engineers (undergraduate)

## STUDENTS MENTORED IN CREATIVE ACTIVITIES INCLUDING THE CREATION OF EXHIBITIONS AND COLLABORATIVE PROJECTS AT THE INSTITUTE OF TEXAN CULTURES:

Blessing Joseph, Biology (undergraduate, 2015)

Artemio Ramos, Economics (undergraduate, 2017)

Sreenivassadarshan Seshadri, Engineering (graduate, 2019)

### Research/Scholarly/Creative Activities

1. Carolyn Luna & Priya V. Prasad (2019) *Building Analysis of the Old School House Lesson Plan*. Math and Architecture in Texas Culture. In collaboration with the Institute of Texan Cultures: a Smithsonian Affiliate (included in supplementary materials).
2. Carolyn Luna (2019) [\*Texas Quilts: Stitching Culture and Math TexKit Lesson Plan\*](#). In collaboration with the Institute of Texan Cultures: a Smithsonian Affiliate.
3. Crystal Kalinec-Craig, Priya V. Prasad & Carolyn Luna (2019) Geometric transformations and Talavera tiles: a culturally responsive approach to teacher professional development and mathematics teaching, *Journal of Mathematics and the Arts*, 13:1-2, 72-90, DOI: 10.1080/17513472.2018.1504491.
  - o Evidence of Impact: percent contribution 30%, impact factor of journal 0.1, 2 citations, 35 references.
4. Luna, C. E. (2014). *Unitizing the Whole: Empowering Teachers with Research-Based Lesson Plans*. Washington, D.C.: American Education Research Association.
5. Luna, C. E. (2014). *Kinesthetic Learning in Mathematics: conducting research to determine the effectiveness of hands-on activities to stimulate learning mathematics*. RCML Conference Proceedings, The Research Council on Mathematics Learning, San Antonio, TX.

### Scholarly Presentations

1. *Student Inquiry in Large Enrollment Classes*. October 24<sup>th</sup>, 2020 Virtual IBL Conference; SA-COMMIT Network.
2. *Teaching Mathematics with Stuff!* Inaugural 2020 Alamo STEM Ecosystem Conference. UT-Health San Antonio, Main Campus. February 1, 2020.
3. *Warhol By The Numbers*. 10<sup>th</sup> Annual Women Breaking Through Conference. The Center of Excellence in Mathematics at St. Philips College – Southwest Campus, San Antonio. October 11, 2019.
4. *Geometric Transformations with Talavera Tiles*, Luna, C., Summer Institute - Building STEAM, McNay Art Museum. July 10, 2019.
5. *Symmetry Across Disciplines*, Luna, C. Summer Institute - Building STEAM, McNay Art Museum. July 10, 2019.
6. *Math and Architecture in Texas Culture*, Luna, C. & Prasad, P. (Co-Presenters), STEAM Workshop, Institute of Texan Cultures/McNay Art Museum/Southwest School of Art, SAVIG lab - ITC. March 15, 2019.
7. *Art in 3D - Scaling and Measurement*, Luna, C. & Prasad, P. (Co-Presenters), STEAM Workshop, Institute of Texan Cultures/McNay Art Museum/Southwest School of Art, SAVIG lab at the ITC. January 4, 2019.
8. *Geometry and Composition*, Luna, C. & Prasad, P. (Co-Presenters), STEAM Workshop, Institute of Texan Cultures/McNay Art Museum/Southwest School of Art, SAVIG lab at the ITC. October 6, 2018.
9. *Hands On Math! Methods to keep learning in the sciences active*. (invited talk, October 20, 2018). STEMsation Conference, Academy for Teacher Excellence, UTSA.
10. *Using Inquiry Based Learning to Create an Inclusive Learning Environment in Large Enrollment Classes* (invited talk, June 1, 2018). National IBL Conference, Austin, Texas.

11. *Hands On Math! Methods to keep learning in the sciences active.* (invited talk, May 31, 2018). Summer STEM Institute, San Antonio College.
12. *The Classroom as Community: Creating an Inclusive Classroom Environment by Design* (invited talk, March 7, 2018). The University of Texas at San Antonio Department of Mathematics.
13. *Archimedes and the Volume of Solids* (invited talk, February 10, 2018). Luna, C. & Vallines, R. (Co-Presenters), Expanding Your Horizons STEM Workshop, University of the Incarnate Word, San Antonio, TX.
14. Luna, C. E. (2015). [\*The Challenges of Teaching Developmental Mathematics Courses: Making Mathematics Appeal to Disengaged Learners by Seeking Depth Over Breadth.\*](#) 2015 Joint Mathematics Meetings Proceedings, Mathematical Association of America; American Mathematical Society, San Antonio, TX. January 12<sup>th</sup>, 2015.

## Granting Activities

1. *High Impact Virtual and Experiential (HIVE) Model for Gateway Business Math* 2021-2022  
The Department of Mathematics instructor team for MAT 1053, Carolyn Luna and Jonathan Brucks, applied for a Curricular Innovation Grant within the UT system to partner with Kimberly Massaro, a faculty member from the College of Business. Together, our team proposes to develop and implement an ePortfolio that includes relevant project-based learning assignments that will serve as a model for other courses with similar student demographics.
2. *COMmunities for Mathematics Inquiry in Teaching Network (COMMIT Network)* 2020 – Present  
NSF-DUE#1925188. PI: Patrick Rault, University of Nebraska. The COMMIT network provides support for inquiry learning through regional outreach and professional development and studies the impact of the communities in undergraduate mathematics education. As part of the leadership committee of the SA-COMMIT community and an active voting member in the National COMMIT Network, I help organize workshops on inquiry learning and update our website to inform others about additional inquiry learning opportunities.
3. *PIVOT grant, University of Texas at San Antonio* 2017 – Present  
PI.: Raquel Marquez & Rhonda Gonzales, UTSA. Math Matters! offers first-generation college students in STEM majors open resources and tutoring for their math courses using an emporium model. As an instructor for the Math Matters! Program, I receive funding from the grant and help develop course content and materials.
4. *Inclusive Excellence Grant, University of Texas at San Antonio* 2017 – 2019  
PI.: Shelley Howell, UTSA. Inclusive Excellence provided selected faculty at UTSA with access to best-teaching practices and student inclusion techniques via campus-wide networking, travel and conference attendance opportunities. As an active member of the faculty learning community for two years, I received compensation for admission to local teaching conferences and workshops while acting as a liaison between the FLC and the Mathematics Department.

## Service Activities

1. *Algebra City, USA – CAST Network High School Educator Workshop Series* 2021 – 2022  
Mentor in a year-long partnership with CAST Network High School mathematics teachers which includes observation, and workshop development for 5 teachers and 4 course coordinators within the San Antonio based CAST Network schools. This partnership is centered around the use of inquiry learning in teaching mathematics. (local commitment)

2. *Peer Reviewer – American Educational Research Association* 2020  
Reviewed and provided comments for approximately 12-15 submissions for the 2021 Annual Meeting of the AERA from two different divisions: Division C - Learning and Instruction/Division C - Section 1c: Mathematics and Division K - Teaching and Teacher Education/Division K - Section 10: Innovation and Policy Investigations in Teaching. (national commitment)
  
3. *Program Director, San Antonio Virtual and Interactive Geometry Lab* 2013 – 2020  
Responsibilities included lesson and activity development for the SAVIG lab; all products connect mathematics, culture, and the community through family activities and classroom visits. Educator workshops are held in the SAVIG lab annually for pre-service, novice, and veteran teachers; topics include manipulative use in the classroom and making curriculum connections between social studies and mathematics. In 2018 SAVIG began a partnership with the McNay Museum of Art and the Southwest School of Art to offer STEAM educator workshops. STEAM workshops resulting from this collaboration occurred October 13<sup>th</sup>, 2018, January 4<sup>th</sup>, 2019, and March 15<sup>th</sup>, 2019. A summer camp for middle-school children was being developed prior to the Pandemic of 2020 utilizing the resources at these three locations. Further, a quilt-making and mathematics workshop was scheduled for April 2020 and cancelled due to the pandemic in coordination with the ITC Quilters Guild. (local commitment)
  
4. *Colloquium Committee, UTSA Department of Mathematics* 2018 – 2019  
Responsible for organizing and assisting with the visits of Dr. Milos Savic from the University of Oklahoma speaking on inquiry-based learning in large enrollment mathematics courses in November 2018, and Dr. Sasha Wang from Boise State University speaking on student development of STEM attitudes and perceived learning in February, 2019. Created speaker trip, including pickup and drop off from airport, organizing meals, and introductions to the department and speaking obligations. (department commitment)
  
5. *College of Sciences Colloquium Teaching Series* 2019  
Coordinated funding with the College of Sciences through the Blumberg Professorship in Biology and Teaching Fund to schedule and organize the visit of Dr. Shay Fuchs from the University of Toronto speaking on the design of active learning large enrollment mathematics programs in April 2019. (college commitment)
  
6. *Faculty Learning Community – Leadership Committee* 2017 – 2019  
Collaborated with faculty across disciplines to design curriculum and instruction recommendations and products for instructors accessing the Teaching and Learning Services virtual resources at UTSA. Participated in two FLC workshops at UTSA by co-presenting about best teaching practices. Recommendations generated through FLC meetings and members were provided to UTSA leadership on how to promote inclusion in the classroom environment. Specifically, our work together generated the UTSA guide for faculty entitled: *Inclusive Excellence: Teaching our Diverse Student Body*. (university commitment)
  
7. *21<sup>st</sup> Century Learning Environment – Committee Member* 2019  
Convened monthly to craft guidelines and specific recommendations on how to improve classroom instruction and the campus environment/community at UTSA as part of a committee reporting to the Provost. (university commitment)