

# Cathrine Maiorca

Assistant Professor of Mathematics Education

California State University, Long Beach  
Department of Teacher Education

Long Beach, CA  
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## ACADEMIC BACKGROUND

- 2011-2016      **Ph.D. Curriculum and Instruction**  
University of Nevada, Las Vegas  
Las Vegas, NV  
Specialization: Mathematics Education  
Dissertation Title: *A Case Study: Students' Mathematics-Related Beliefs from Integrated STEM Model-Eliciting Activities*  
Committee: Dr. Micah Stohlmann and Jeff Shih (co-chairs), Dr. Travis Olson, Dr. Alice Corkill and Dr. Jori Beck
- 2008-2011      **Master of Arts in Secondary Education**  
Sierra Nevada College  
Henderson, NV
- 2000-2003      **Graduate Studies**  
Mathematical Statistics  
Portland State University  
Portland, OR
- 1993-1997      **Bachelor of Arts in Mathematics and Music**  
Austin College  
Sherman, TX

## LICENSING AND CERTIFICATION

- Nevada Secondary Mathematics, 7-12 (expired)
- Texas Secondary Mathematics, 8-12 (inactive)

## PROFESSIONAL WORK EXPERIENCE

### California State University, Long Beach

Long Beach, CA

8/2016 – present

Assistant Professor of Elementary Mathematics Education

### University of Nevada, Las Vegas

Las Vegas, NV

June 2016

University Supervisor

8/2012 – 5/2016

Graduate Research Assistant and Graduate Teaching Assistant

**Florida State University**

Tallahassee, FL

2013-2014

Model-Eliciting Activity Reviewer

**Clark County School District**

Las Vegas, NV

2008-2012

Highschool Mathematics Teacher

**Allen Independent School District**

Allen, TX

2005-2007

Highschool Mathematics Teacher

**Desoto Independent School District**

Desoto, TX

2004-2005

Highschool Mathematics Teacher

**Tacoma Community College**

Tacoma, WA

2003-2004

Part Time Instructor of Mathematics

**Pierce County Community College**

Puyallup, WA

2003-2004

Part Time Instructor of Mathematics and Statistics

**Portland State University**

Portland, OR

2000-2003

Graduate Teaching Assistant

2002-2003

Mathematics and Statistics Lecturer

**San Francisco Independent School District**

San Francisco, CA

1999-2000

Highschool Mathematics Teacher

**HONORS**

- 2018 AMTE STaR Fellow
- 2020 School Science and Mathematics Association Early Career Scholar Award
- 2021 California State University College of Education Research Award

**PUBLICATIONS**

**Peer Reviewed Journal Articles**

- Bush, S. B., \*Edelen, D., Roberts, T., **Maiorca, C.**, Ivy, J. T., Cook, K. L., Tripp, L. O. Burton, M., Alameh, S., Jackson, C., Mohr-Schroeder, M. J., Schroeder, D. C., \*McCurdy, R. P., Cox Jr., R. (under review). *Humanizing STE(A)M instruction through empathy leveraging Design thinking to improve society*. Science and Education
- Cook, K., Alameh, S., Tripp, O. **Maiorca, C.**, Schroeder, C., & Mohr-Schroeder, M. (2021). Five Practices for Effective and Equitable Discourse: An Example from a Virtual STEM Experience. *Connected Science*.
- Jackson, C., Mohr-Schroeder, M. J., Bush, S., **Maiorca, C.**, Roberts, O. T., (2021). Toward an equity-based STEM literacy conceptual framework.
- Maiorca, C. (2021)**. GPS: Using Engineering Design Problems to Promote *Mathematical Problem Solving*. *Mathematics Teacher: Learning and Teaching PK-12*, 114 (2), p. 154 -158)
- Maiorca, C.**, & Mohr-Schroeder, M. (2020). Elementary preservice teachers' integration of engineering into STEM lesson plans. *School Science and Mathematics*. DOI: 10.1111/ssm.12433
- Maiorca, C.**, Roberts, T., Jackson, C. Bush, S. Delaney, A. Mohr-Schroeder, M. Yao, S. (2020). Informal Learning Environments and Impact on Interest in STEM Careers. *International Journal of Science and Mathematics Education*. DOI 10.1007/s10763-019-10038-9
- Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, Nickels, M. (2020). STEM literacy. *Handbook of Research on STEM Education*. C. Johnson, M. Mohr-Schroeder, T. Moore & L. English (Eds). New York, NY: Routledge/Taylor & Francis. (editor reviewed)
- Maiorca, C.**, & Stohlmann, M., & Driessen, E. (2019). Getting to the bottom of the truth: STEM shortage OR STEM surplus? Sahin, A., & Mohr-Schroeder, M. J. (Eds). *Myths and Truths: What has years of K-12 STEM education research taught us?* Brill Publishing.
- Roberts, T., **Maiorca, C.**, & Chapman, P. (2019). Equitably engaging all students in STEM. *The Elementary STEM Journal* (23)4, 30–33.
- Shih, J., Ing, M., Phelan, J., Brown, R. & **Maiorca, C.** (2019). *The Influence of Students' Self-Perceptions and Mathematics Experiences on Learning More Mathematics in the Future*. Investigations in Mathematics Learning. [doi.org/10.1080/19477503.2019.1582960](https://doi.org/10.1080/19477503.2019.1582960)

Roberts, T., Jackson, C., Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, Cavalcanti, M., Schroeder, C., Delaney, A., Putnam, L., & Cremeans, C. (2018). Students' perceptions of STEM learning after participating in a summer informal learning experience. *International Journal of STEM Education*. <https://doi.org/10.1186/s40594-018-0133-4>

Stohlmann, M., **Maiorca, C.**, & DeVaul, L. (2017). Elementary teachers' engineering design activities from a state without engineering standards. *Science Educator*, 26(1), 1-12.

Stohlmann, M., **Maiorca, C.**, & Allen, C. (2017). A case study of teachers' development of well-structured mathematical modeling activities. *Mathematics Teacher Education and Development*. 19(2), 4-24

Stohlmann, M., **Maiorca, C.**, & Olson, T. (2015). Preservice secondary teachers' conceptions from a mathematical modeling activity and connections to the Common Core State Standards. *The Mathematics Educator Journal*.

Stohlmann, M., Cramer, K., Moore, T., & **Maiorca, C.** (2014). Changing preservice elementary teachers' beliefs about mathematical knowledge. *Mathematics Teacher Education and Development*, 16(2), 4-24.

### **Book Chapters**

Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, Nickels, M. (2020). STEM literacy. *Handbook of Research on STEM Education*. C. Johnson, M. Mohr-Schroeder, T. Moore & L. English (Eds). New York, NY: Routledge/Taylor & Francis.

**Maiorca, C.**, & Stohlmann, M., & Driessen, E. (2019). Getting to the bottom of the truth: STEM shortage OR STEM surplus?. Sahin, A., & Mohr-Schroeder, M. J. (Eds). *Myths and Truths: What has years of K-12 STEM education research taught us?* Brill Publishing.

**Maiorca, C.**, & Stohlmann, M. (2016). Inspiring students in STEM education through modeling activities. *Annual Perspectives in Mathematics Education 2016: Mathematical Modeling and Modeling Mathematics*. Reston, VA.

### **Conference Proceedings and Papers**

Burton, M, Tripp, O., **Maiorca, C.**, Roberts, T. & Ivy, J. (2021). Lesson learned from teaching STEM in a virtual environment: A self-study. International Symposium of Elementary Mathematics Teaching:

**Maiorca, C.**, & Roberts, T. (2020). *Examining preservice teachers' STEM dispositions through informal STEM learning*. Conference Proceedings Annual Meeting of the Research Council on Mathematics Learning: Las Vegas, NV.

- Roberts, T., & **Maiorca, C.** (2020). *Exploring positive shifts in preservice elementary teachers' conceptions of mathematics*. Conference Proceedings Annual Meeting of the Research Council on Mathematics Learning: Las Vegas, NV.
- Roberts, T., Jackson, C., Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, & Delaney, A. (2019). *Exploring applications of school mathematics: Students' perceptions of informal learning experiences*. North American Chapter of the International Group for the Psychology of Mathematics Education. St. Louis, MO.
- Maiorca, C.**, & Roberts, T. (2018). Informal STEM Learning Changing Preservice Teachers' beliefs. In J. N. Thomas & M. J. Mohr-Schroeder (Eds.), *Proceedings of the 117th annual convention of the School Science and Mathematics Association* (Vol. 4).
- Maiorca, C.**, & Stohlmann, M. (2017). The Impact of an Integrated STEM After-School Program on Elementary Students' Beliefs About the Role of the Teacher. Proceedings of the 16th annual Hawaii International Conference on Education.

### **Conference Presentations**

- Burton, M., Tripp, L. O., **Maiorca, C.**, Roberts, T., & Ivy, J. (2021). Lessons learned from teaching STEM in a virtual environment: A self-study. In J. Novotna & H. Moraova (Eds.), *Proceedings of the International Symposium of Elementary Mathematics Teaching: Broadening Experiences in Elementary School Mathematics*. (pp. 129-138). Prague, the Czech Republic. Hybrid
- Roberts, T., Roberts, A. C., & **Maiorca, C.** (2021). *A mixed methods exploration of first year inclusive preservice teachers' conceptions of teaching mathematics*. Paper presented at the 2021 American Educational Research Association Conference. Virtual.
- Jackson, C., Mohr-Schroeder, M. J., Roberts, T., & **Maiorca, C.** (2021). *Students' perceptions of mathematics and science*. Roundtable session at the 2021 American Educational Research Association Conference. Virtual.
- Benken, B., & **Maiorca, C.** (2021) Using Integrated STEM as a Context to Teach Mathematics: Expanding Prospective Elementary Teachers' Dispositions. Annual Meeting of Association of Mathematics Teacher Educators. Virtual
- Maiorca, C.**, & Roberts, T. (2021). Integrating STEM in elementary classrooms with MEAs. Annual Meeting of the International Technology Engineering Educators Association. Virtual

- Roberts, T., & **Maiorca, C.** (2021). Leveraging informal learning to engage underrepresented populations. Annual Meeting of the International Technology Engineering Educators Association. Virtual
- Maiorca, C.**, Roberts, T., Jackson, C., & Mohr-Schroeder, M. (2020) Informal STEM learning: Expanding students' perceptions of Mathematics. Annual Meeting of the Research Council on Mathematics Learning. Virtual
- Maiorca, C.**, & Benken, B. (2021). Preservice Dispositions towards using Integrated STEM to Teach Mathematics. Annual Meeting of the Research Council on Mathematics Learning. Virtual
- Maiorca, C.**, & Benken, B. (2020). *Using Integrated STEM to Teach Math in a Virtual World*. California STEAM Symposium. Virtual
- Maiorca, C.**, Roberts, T., Jackson, C. Bush, S., & Mohr-Schroeder, M. (2020). Raising STEM career awareness through informal STEM experiences. Annual Meeting of the School Science and Mathematics Association. Virtual.
- Maiorca, C.**, & Mohr-Schroeder, M. (2020). The Integration of Engineering in Integrated STEM Lesson Plans by Elementary Pre-service Teachers. Annual Meeting of the School Science and Mathematics Association. Virtual.
- Roberts, T., & **Maiorca, C.** (2020). *Leveraging informal learning to engage underrepresented populations*. Annual Meeting of the International Technology Engineering Educators Association. Baltimore, MD. (canceled due to COVID)
- Maiorca, C.**, & Roberts, T. (2020). *Integrating STEM in elementary classrooms with MEAs*. Annual Meeting of the International Technology Engineering Educators Association. Baltimore, MD. (canceled due to COVID)
- Maiorca, C.**, & Roberts, T. (2020). *Examining preservice teachers' STEM dispositions through informal learning*. Annual Meeting of the Research Council on Mathematics Learning. Las Vegas, NV.
- Roberts, T., & **Maiorca, C.** (2020). Influencing preservice teachers' mathematics knowledge and conceptions. Annual Meeting of the Research Council on Mathematics Learning. Las Vegas, NV
- Benken, B. & **Maiorca, C.** (2019). *Expanding Elementary Preservice Teachers' Dispositions Towards Teaching STEM*. Fall Conference on California Council on Teacher Education. San Diego, CA.
- Maiorca, C.**, & Benken B. (2019). *Integrating STEM into an Elementary Mathematics Methods Course to Expand Dispositions Towards Teaching STEM*. Poster presented at the National STEM Summit. Raleigh, NC.

- Maiorca, C., & Benken, B. (2019).** *Expanding Dispositions by Using Integrated STEM Unit in Elementary Methods*. Poster presented at the National Council of Teachers of Mathematics Research Conference. San Diego, CA.
- Roberts, T., Jackson, C., Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, & Delaney, A. (2019). *Exploring applications of school mathematics: Students' perceptions of informal learning experiences*. Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. St. Louis, MO.
- Roberts, T., Jackson, C., Mohr-Schroeder, M., Bush, S., **Maiorca, C.**, Cavalcanti, M., Schroeder, C., Delaney, A., Putnam, L., & Cremeans, C. (2019). Students' perceptions of STEM learning after participating in an informal learning experience. Annual Meeting of the School Science and Mathematics Association. Salt Lake City, UT.
- Maiorca, C., & Roberts, T. (2019).** *Learning to teach STEM by participating in informal learning environments*. Annual Meeting of the School Science and Mathematics Association Salt Lake City, Utah. 2019.
- Roberts, T., & **Maiorca, C. (2019).** *The Struggle Is Real: Addressing Gaps in Preservice Teacher Knowledge*. Annual Meeting of the Research Council on Mathematics Learning: Charlotte, NC.
- Benken, B. M., & **Maiorca, C. (2018).** *Using integrated math and science standards-based lessons to enhance preservice elementary teachers' understandings and confidence*. Research presentation at the Annual California STEAM Symposium, Long Beach, CA.
- Maiorca, C., & Roberts, T. (2018).** Informal STEM Learning Changing Preservice Teachers' beliefs. Annual Meeting of the School Science and Mathematics Association. Little Rock AR.
- Schroeder, C., **Maiorca, C.**, Jackson, C., Roberts, T., Delaney, A., Bush, S., Cavalcanti, M., & Mohr-Schroeder, M. (2018). Motivating and Inspiring Elementary and Middle-Level Students' Interest in STEM. Annual Meeting of the School Science and Mathematics Association. Little Rock, AR.
- Jackson, C., Cavalcanti, M., Dueber, D., **Maiorca, C.**, Roberts, T., Delaney, A., Bush, S., Schroeder, C. (2018). Operationalizing Equity-Based STEM Literacy in Designing Quantitative Survey. Annual Meeting of the School Science and Mathematics Association. Little Rock, AR.
- Cavalcanti, C., Mohr-Schroeder, M. Jackson, C., **Maiorca, C.**, Delaney, A., & Roberts, T. (2018). Going beyond the framework: Operationalizing an equity framework in

- designing quantitative survey. Annual Meeting of the Association of Mathematics Teacher Educators. Houston TX.
- Mohr-Schroeder, M., Jackson, C., **Maiorca, C.**, Roberts, T., Delaney A., & Schroeder, D. (2017). An equitable approach to a STEM Literacy Framework: Results of a Pilot. Annual Meeting of the School Science and Mathematics Association. Lexington, KY.
- Maiorca, C.**, & Olson, T. (2016). The implicit and explicit mathematics in integrated STEM activities. Annual Meeting of the School Science and Mathematics Association. Phoenix, AZ.
- Maiorca, C.**, & Olson, T. (2016). The implicit and explicit mathematics in integrated STEM activities. Annual Meeting of the School Science and Mathematics Association. Phoenix, AZ.
- Maiorca, C.**, & Stohlmann, M. (2016). Integrated STEM and Model-Eliciting Activities: Making math more engaging. Annual Meeting of the National Council of Teachers of Mathematics. San Francisco, CA
- Maiorca, C.** (2016). The Elephant in the Room: Students' Mathematics-Related Beliefs. Annual Meeting of the Research Council on Mathematics Learning. Orlando, FL.
- Maiorca, C.** & Olson, T. (2015). Making mathematics more relevant through integrated STEM. Annual Meeting of the National Council of Teachers of Mathematics. Boston, MA.
- Stohlmann, M. & **Maiorca, C.** (2015). Mathematical modeling: A model approach to keep students engaged. Annual Meeting of the National Council of Teachers of Mathematics. Boston, MA.
- Maiorca, C.** & Olson, T. (2015). Investigations into teachers' perspectives on mathematical modeling. Annual Meeting of the Research Council on Mathematics Learning. Las Vegas, NV.
- Maiorca, C.** (2015). Students' mathematics-related beliefs and STEM model-eliciting activities. Annual Meeting of the Research Council on Mathematics Learning. Las Vegas, NV.
- Stohlmann, M., Allen, C. & **Maiorca, C.** (2015). *A case study of teachers' development of well-structured mathematical modeling activities.* Hawaii International Conference on Education. Honolulu, HI.
- Stohlmann, M., **Maiorca, C.**, & Olson, T. (2014). *The mathematics of hotel/casino management.* Annual Meeting of the National Council of Teachers of Mathematics. New Orleans, LA.



**Maiorca, C., & Stohlmann, M.** (2014). *The how and why of integrated STEM model-eliciting activities*. Annual Meeting of the National Council of Teachers of Mathematics. New Orleans, LA.

Stohlmann, M., Cramer, K., Moore, T., & **Maiorca, C.** (2013). *Changing preservice elementary teachers' beliefs through models of students' thinking about fraction division*. Poster presented at the National Council of Teachers of Mathematics Research Pre-session. Denver, CO.

Stohlmann, M. & **Maiorca, C.** (2013). *It's not STEM without the M*. Southern Nevada Math and Science Annual Conference. Las Vegas, NV.

### **Poster Sessions**

Benken, B. & **Maiorca, C.** (2021). *Using Integrated STEM as a Context for to Teach Mathematic and Expand Prospective Teachers' Dispositions*. Fall Conference on California Council on Teacher Education. San Diego, CA.

Benken, B. & **Maiorca, C.** (2019). *Expanding Elementary Preservice Teachers' Dispositions Towards Teaching STEM*. Fall Conference on California Council on Teacher Education. San Diego, CA.

**Maiorca, C., & Benken B.** (2019). *Integrating STEM into an Elementary Mathematics Methods Course to Expand Dispositions Towards Teaching STEM*. Poster presented at the National STEM Summit. Raleigh, NC.

**Maiorca, C., & Benken, B.** (2019). *Expanding Dispositions by Using Integrated STEM Unit in Elementary Methods*. Poster presented at the National Council of Teachers of Mathematics Research conference. San Diego, CA.

### **Accepted Presentations**

Bush, S. B., \*Edelen, D., Roberts, T., **Maiorca, C.**, Ivy, J. T., Cook, K. L., Tripp, L. O. Burton, M., Alameh, S., Jackson, C., Mohr-Schroeder, M. J., Schroeder, D. C., \*McCurdy, R. P., & Cox Jr., R. (2021, October). *The role of empathy in integrated STE(A)M instruction*. School Science and Mathematics Association Annual Convention. Virtual.

Jackson, C., Mohr-Schroeder, M., Bush, S.B., **Maiorca, C.**, & Roberts, T. (October 2021). *Equity-Oriented STEM literacy conceptual framework*. School Science and Mathematics Association Annual Convention. Virtual.

**Maiorca, C.**, Tripp, O., & Burton, M. (October 2021). *PST perceptions of integrated STEM through virtual learning experiences*. School Science and Mathematics Association Annual Convention. Virtual.

Burton, M., **Maiorca, C.**, Tripp, O., Roberts, T., Ivy, J. (October 2021). *Reflections on a virtual STEM camp: Lessons learned by teacher educators*. School Science and Mathematics Association Annual Convention. Virtual.

**Maiorca, C.**, Roberts, T., Jackson, C., Mohr-Schroeder, M., & Bush, S.B. (January 2022). *Mathematics: Barrier or motivator to STEM career interests*. Hawaii International Conference on Education. Waikoloa, HI.

**Maiorca, C.**, Piker, R., & Hamm, D. (January 2022). *Early childhood teachers' dispositions of Integrated STEM*. Hawaii International Conference on Education. Waikoloa, HI.

Burton, M., Tripp, O., **Maiorca, C.**, & Roberts, T. (February 2022). *Collaborating Across Disciplines to Impact Preservice Teachers Beliefs about Teaching STEM, Science and Mathematics*. Annual Meeting of Association of Mathematics Teacher Educators. Las Vegas, NV.

Burton, M., **Maiorca, C.**, Tripp, O., (March 2022). *Elementary PSTs' Mathematics Teaching Beliefs after Teaching STEM Virtually*. Annual Meeting of the Research Council on Mathematics Learning. Grapevine, TX.

Jackson, C., Mohr-Schroeder, M., Roberts, T., **Maiorca, C.** (March 2022). *Teaching & Learning Mathematics Within Integrated STEM*. Annual Meeting of the Research Council on Mathematics Learning. Grapevine, TX

Roberts, T., & **Maiorca, C.** (March 2022). *Technology and Engineering Practices in Elementary STEM*. Annual Meeting of the International Technology Engineering Educators Association. Orlando, FL.

**Maiorca, C.**, & Roberts, T. (March 2022). *Implementing STELs in Elementary Classroom using MEAs*. Annual Meeting of the International Technology Engineering Educators Association. Orlando, FL.

Burton, M., Tripp, O., & **Maiorca, C.** (March 2022). *Inhabit Mars: Virtual STEM for Elementary Students*. Annual Meeting of the International Technology Engineering Educators Association. Orlando, FL.

## EXTERNAL FUNDING

### *Funded:*

Department of Education: **STEAM Ecosystem Expanded Demonstration Project. Role PI** for California State University, Long Beach (Amount requested \$167, 378, Full Project Amount for first year \$1,580,125, anticipated funding for five years) (**funded**)

Fluor Foundation Grant, Fluor Corporation. **CSULB STEM Ed Project. Role: PI**  
Awarded, 2020, \$10,000

Fluor Foundation Grant, Fluor Corporation. **CSULB STEM Ed Project. Role: PI**  
Awarded, 2019, \$10,000

Fluor Foundation Grant, Fluor Corporation. **CSULB STEM Ed Project. Role: PI**  
Awarded, 2018, \$10,000

Fluor Foundation Grant, Fluor Corporation. **STEM @ The Beach. Role: PI** Awarded,  
Summer 2017, \$3,000

### ***Not Funded:***

National Science Foundation -ITEST. **Collaborative Research: Developing and Testing Innovations: STEM Within: Promoting Positive Identities through Anti-racist and Gender Inclusive Virtual Integrated STEM Experiences. Role PI.** at California State University, collaborative with University of Kentucky, Iowa State University, Bowling Green State University, Bellarmore University, University of Central Florida and Auburn University. (Amount requested \$166,421, Full project amount 1,500,000, submitted summer 2020) (**Unfunded**)

National Science Foundation – Early Career. **CAREER: Transforming Teaching Practice through Affect: The Role of Informal STEM Experiences. Role PI** (amount requested \$448,256, submitted summer 2020) (**Unfunded**)

Spencer Foundation- COVID Related Research Grant. **Supporting the teaching and learning of integrated STEM in early childhood education during COVID-19 times of social distancing and online learning. Role PI.** Submitted June 2020. (Amount Requested \$49,992) (**Unfunded**)

Spencer Foundation – Small Grant. **Informal Learning in an Aquarium: Building School-to-Home-to-Community Connections to Promote STEM and Digital Literacies. Role Co-PI.** (Amount requested \$59,939). (**Unfunded**)

National Science Foundation – ITEST. **Collaborative Research: SPrEaD: Broadening Participation Research: Increasing Opportunity and Access for Underrepresented Learners in STEM. Role: PI.** at California State University collaborative with University of Kentucky, Iowa State University and Bowling Green State University. Submitted August. (Amount requested \$347, 879, Full project amount \$1,997,618) (**Unfunded**)

National Science Foundation – AISL. **Collaborative Research: Broadening Participation in STEM Education via STEM Camps. Role: PI.** at California State University collaborative with University of Kentucky, Iowa State University and Bowling Green State University. Submitted November 2017. (Amount requested \$392,860, Full project amount \$3,000,000) (**Unfunded**)

***In preparation or Submitted***

National Science Foundation: **Collaborative Research: Developing and Testing Innovations: *STEM Within: Promoting Positive Identities through Anti-racist and Gender Inclusive Virtual Integrated STEM Experiences.*** Role **PI** at California State University, Long Beach. Principal Investigators: Margaret Mohr-Schroeder at University of Kentucky, Christa Jackson at Saint Luis University and Sarah Bush at University of Central Florida. (Amount requested \$108,535, Full Project Amount \$3,000,000) **(Pending)**

**INTERNAL FUNDING**

CSULB **Instructionally Related Activities Grant** Academic Year, 2019-2020. **Role: PI.** \$4,000, 2020-2021 **(Funded)**

CSULB Multidisciplinary Grant. **Designing an Instrument to Measure Elementary Preservice Teachers' Dispositions Towards Integrated STEM** **Role: PI.** April 2020, awarded \$ **14,675.00 (Funded)**

CSULB Multidisciplinary Grant. **Aquarium STEM and family's' literacies project.** **Role: Co-PI.** April 2019 **(Awarded, \$15,000) (Funded)**

CSULB Multidisciplinary Grant. **Aquarium STEM and family's' literacies project.** **Role: Co-PI.** Awarded, April 2019, \$15,000 **(Funded)**

CSU Call, **Irvine Foundation.** Awarded 2019, \$6,000 **(Funded)**

CSU Call, **Irvine Foundation.** Awarded 2018, \$10,000 **(Funded)**

CSULB **College of Education Mentorship Grant Program.** **Role: PI.** Awarded, Spring 2018; \$1,000 and 3-unit buyout **(Funded)**

CSULB **College of Education Mentorship Grant Program.** **Role: PI** Awarded, Fall 2017; \$1,000 and 3-unit buyout **(Funded)**

CSULB **Instructionally Related Activities Grant.** **Role: PI** Awarded, 2017-2018 Academic Year, \$8,000 **(Funded)**

**SERVICE*****National***

**President Elect,** Elementary STEM Council of International Technology and Engineering Educators Association 2020- 2022

**Member**, Conference Committee for National Council of Teachers of Mathematics Regional Conference, Tampa FL. 2020

**Member**, Editorial Review Board for the International Technology and Engineering Educators Association Elementary STEM journal, 2018- present

**Member**, School Science and Mathematics Publications committee 2017 – 2020

**Reviewer**, Mathematics Teacher: Learning and Teaching Mathematics PK-12

**Reviewer**, Journal of Mathematical Behavior, 2020 - present

**Reviewer**, School Science, and Mathematics, 2017- present

**Reviewer**, International Journal of Science and Mathematics Education, 2019- present

**Reviewer**, Research Council on Mathematics Learning, 2016- present

**Reviewer**, National Science Foundation Panel, 2017

### *University*

**Recorder**, University Resource Council, AY 2020-2021

**Member**, University Resource Council, fall 2018 to present

### *College*

**Co-Chair**, CED Technology Committee, AY 2020-2021

**Member**, CED Technology Committee, AY 2021-2022

**Member**, Initial Teacher Preparation Program Committee AY 2019-2020; 2020 - 2021 (non-elected)

**Member**, Arts in Education, AY 2019-2020

**Chair**, Endowments Committee, AY 2017- 2018

**Member**, Endowments Committee, Spring 2017

**Member**, Faculty Council Teacher Education Department Representative, AY 2016-2017, 2017- 2018

### *Department*

**Member**, Evaluation of Lecturers, Fall 2021 to present

UTEACH Coordinator, AY 2019-2020; AY 2020 - 2021

**Member**, Tenure Track Search Committee, Fall 2019

Library Representative, Fall 2019

**Member**, Early Childhood Education Committee, Fall 2019

EDEL 462 Coordinator, Spring 2017 to present

**Chair**, Admissions and Standards Committee, Fall 2017 to present

**Member**, Admissions and Standards Committee, AY 2016 – 2017

### ***Community Workshops***

Maiorca, C. (Summers 2017, 2018 & 2019). STEM @ The Beach. Long Beach, CA.

Maiorca, C. (2015). After School STEM Academy. Sister Robert Joseph Bailey Elementary School. Las Vegas, NV.

Stohlmann, M. & Maiorca, C. (2013 & 2014). Saturday STEM. University of Nevada, Las Vegas.

Olson, T & Maiorca, C. (2013). Rebel STEM Academy. University of Nevada, Las Vegas.

## **PROFESSIONAL AFFILIATIONS**

### ***National***

2019 - present, Psychology of Mathematics Education, North America

2019 - present, California Council of Teacher Education

2018 - present, National Science Teachers Association

2017 - present, Association of Mathematics Teachers Educators

2015 - present, School Science and Mathematics

2015 - present, Research Council on Mathematics Learning

2010 - present, National Council of Teachers of Mathematics

### ***International***

2018 - present, International Technology and Engineering Educators Association

## TEACHING EXPERIENCE

### *California State University, Long Beach*

#### **Post Baccalaureate/ Credential Classes**

EDEL 462 Teaching and Learning Mathematics, K-8  
EDEL 482D Student Teaching in Diverse Classrooms

#### **Master's Level**

EDP 419: Introduction to Quantitative Statistical Methods  
EDEC 527 Early Childhood Mathematics and Integrated STEM

### *University of Nevada, Las Vegas*

#### **Undergraduate/ Credential Classes**

CIE 433 Teaching Elementary School Mathematics

#### **University Supervisor**

EDCI 490: Secondary Education Mathematics and Science Student Teaching Internship

#### **Master's Level**

CIS 533M Teaching Middle School Mathematics

### *Graduate Teaching Assistant*

#### **University of Nevada, Las Vegas**

CIE 625 Instructional Intermediate Elementary Mathematics Education  
EDMS 453/ CIS 533M Teaching Middle School Mathematics  
CIE 629 Curriculum Development in Mathematics Education

### *K-12 Teaching Experience*

2008-2012	<b>Secondary Mathematics Teacher</b> Geometry, Algebra I Clark County School District Las Vegas, NV
2005- 2007	<b>Secondary Mathematics Teacher</b>

Trigonometry, Pre-Calculus, AP Statistics  
Allen High School  
Allen Independent School District  
Allen, TX

2004-2005

**Secondary Mathematics Teacher**  
Algebra II  
Desoto High School  
Desoto Independent School District  
Desoto, TX

1998-1999

**Secondary Mathematics Teacher**  
Algebra I, Trigonometry and Pre-Calculus  
International Studies Academy  
San Francisco Independent School District  
San Francisco, CA