

CURRICULUM VITAE

Service Emphasis

Mary LinhardGarner

Co-Director Gateway Community Math Center

Professor Emeritus of Mathematics at Kennesaw State University

Lecturer at Oglethorpe University

GENERAL INFORMATION

Gateway Community Math Center, 4651 Woodstock Rd, Ste 208-157, Roswell, GA 30075

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EDUCATION

Ph.D. 1998 Emory University, Educational Studies

M.S. 1987 Georgia Institute of Technology, Applied Mathematics

B.S. 1975 University of Florida, Chemistry

PROFESSIONAL EXPERIENCE

2017 – present Co-Director Gateway Community Math Center

2014 – present Professor Emeritus of Mathematics, Kennesaw State University

2014 - present Visiting Assistant Professor then part-time lecturer, Oglethorpe University

2014 – 2015 Associate Director for Faculty Support at the Center for Excellence in Teaching and Learning, Kennesaw State University

1998-2014 Assistant Professor, Associate Professor, then Professor of Mathematics at Kennesaw State University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Mathematical Association of America (MAA)

Special Interest Groups of the MAA -- Recreational Mathematics, Mathematics and the Arts,
Math Circles for Students and Teachers, History of Mathematics

National Council of Teachers of Mathematics

Georgia Council of Teachers of Mathematics

Institute for Objective Measurement

AWARDS

John Neff Award from the Georgia Council of Teachers of Mathematics 2017

Kennesaw State University Distinguished Professor Award 2009

University System of Georgia Board of Regents Excellence in Teaching Award 2007

Kennesaw State University Distinguished Teaching Award 2006

The 2003 Kennesaw State University College of Science and Mathematics Distinguished Teaching Award 2003

Kennesaw State University Scholars Ceremony Honoree in 2013, 2011, 2010, 2008, 2007, 2004, 2002.

COMMUNITY SERVICE

Metro Atlanta Math Teachers' Circle (MAMTC), 2009 – present.

Dr. Virginia Watson and I established this math circle for teachers in 2011 and continue to meet with teachers monthly to have fun exploring different problems and topics in mathematics. Each month we also lead an on-line Math Book Club. We also conduct week-long summer math circles for teachers. In 2012, we focused on geometry; in 2013, probability and statistics; in 2015, we explored the mathematics of flight and toured Lockheed; in 2016, we explored the mathematics of logistics and again toured Lockheed.

Julia Robinson Math Festival at Oglethorpe University, Spring 2018.

An afternoon of fun activities involving mathematics was provided to local middle school and high school students with the help of approximately 20 Oglethorpe students.

KSU's Fall Workshop for the PAGE Academic Decathlon, 2013, 2014, 2015, 2016.

I gave presentations on preparing for the math competition and the relationship between the math topics and the topics in literature, science, and history.

Georgia Department of Education Summer Academy, instructor 2014.

I participated in the design of materials and visited schools around the state, engaging teachers in explorations involving seventh grade mathematics.

KSU's First, Second, and Third Annual Elementary Math Bowl, 2011, 2012, 2013, 2014, 2015, 2016. I was a co-founder and co-organizer for a math competition involving approximately 180 students and teachers from seven low-income, urban elementary

schools in Cobb County. Dr. Virginia Watson took over leadership when I retired, but I continue to help with the competition each spring.

KSU's Summer Math Camp for High School Students, co-founder and co-organizer 2012, 2013, 2014. I was a co-founder and co-organizer (with Dr. Virginia Watson and Dr. Tatiana Rudchenko) of a week-long summer camp for high school students at KSU.

KSU's First and Second Annual Middle Grades Math Bowl, co-founder and co-organizer 2012, 2013. I was a co-founder and co-organizer for a math competition involving approximately 70 students and teachers from three low-income, urban middle schools in Cobb County.

Summer Academy at Smitha Middle School, instructor 2011.

I was math instructor for a "Summer Academy" designed to provide math enrichment for rising sixth, seventh and eighth graders.

GACE Preparation Workshop for Teachers, instructor 2011.

I designed and delivered a workshop for middle grades teachers in Cobb County who were planning on taking the GACE examination for high school certification in mathematics.

Math and Science Partnership for Paulding County, instructor and consultant 2007-2009.

I conducted a series of two one-week summer workshops and a series of all-day mathematics workshops during the school year for teachers from K-9 classrooms.

Marietta High School, Interview committee for Governor's Honors Program, member 2003-2009.

South Cobb High School Review for High School Exit Exam, instructor 2007 – 2008.

Math Day at KSU, organizer 2006.

The Department of Mathematics and Statistics hosted 90 high school students from Kennesaw Mountain High School. The students spent a morning at KSU attending a variety of presentations about applications of mathematics by faculty of the Department of Mathematics and Statistics.

Georgia Department of Education Committee for Writing the Georgia Performance Standards Frameworks for Grade 7 Mathematics, member 2006.

I was responsible for writing Unit 7: Slices and Shadows. I had the great pleasure of designing the unit with Dr. Thomas Banchoff from Brown University.

TEACHER WORKSHOPS

Mathematics Games for the Classroom online workshop 2022

Trapping Zombies with Geometry, Probability, Algebra, Mathematical Modeling 2019

The Math You Know Like You've Never Seen It Before 2018

Geometry of the Universe 2017

Logistics is Math 2016

Flying With Mathematics 2015

Statistics and Probability Math Teachers' Circle, 2013-2014

Georgia Department of Education Summer Academy 2014

GACE Preparation Workshop 2011

Teacher Quality Partnership (TQP) Math Teachers' Circles, 2010-2011

Using Literature to Promote Understanding I and II 2006 and 2007

STUDENT SUMMER CAMPS

Oglethorpe Summer Math Camp for High School Students, Dimensions and Manifolds, 2019

Oglethorpe Summer Online Math Camp for High School Students, Games, 2020

Oglethorpe Summer Math Camp for Middle School Students, 2021.

KSU's Summer Math Camp for High School Students, co-founder and co-organizer 2012, 2013, 2014.

SELECTED PUBLICATIONS

In Focus (Tate Gallery Research Publication): The Merging of Art and Mathematics in *Surface Substitution on 36 Plates*, by Garner, 2017.
<https://www.tate.org.uk/research/publications/in-focus/surface-substitution/art-and-maths>.

School Science and Mathematics: Influence of a math teachers' circle on elementary teachers' use of problem solving, by Garner, Watson, Rogers and Head. 2017.

Mathematics Teacher: A surprisingly radical problem, by Ledford and Garner, 2013.

Mathematics Teaching in the Middle School: Stirring the mathematical imagination through *Flatland* the movie, by Derado, Garner, Edwards and Garrett. 2010

Proceedings of the 31st annual meeting of the North American chapter of the International Group for the Psychology of Mathematics Education: Teacher-designed questions about a mathematical story, by Garner, 2009.

<http://www.pmena.org/2009/proceedings>

Learning and Teaching Mathematics: Problem solving and proving via generalization, by deVilliers and Garner, 2007.

GRANTS AND CONTRACTS ASSOCIATED WITH SERVICE ACTIVITIES

Oglethorpe University Summer Math Camps, Project Director M. Garner, Co-Project Director V. Watson, Dolciani Mathematics Enrichment Grants (MAA) \$4000, Summers 2021 and 2022.

Oglethorpe University Summer Math Camp, Project Director M. Garner, Co-Project Director V. Watson. Dolciani Mathematics Enrichment Grants (MAA) \$2,600, Summer 2019.

Metro Atlanta Math Teachers' Circle, Project Director V. Watson, Co-Project Directors M. Garner and B. Rogers, Lockheed Martin, \$5000, May 2014.

Metro Atlanta Math Teachers' Circle, PI V. Watson, Co-PIs M. Garner and B. Rogers, American Institute of Mathematics, \$1900, August 2013 – May 2014.

KSU Math Circle Summer Camp 2013, PI V. Watson, Co-PIs M. Garner and T. Rudchenko, Dolciani Mathematics Enrichment Grants, \$6000, April 2013 – September 2013.

Statistics and Probability Math Teachers' Circle, PI V. Watson, Co-PIs M. Garner and B. Rogers, Improving Teacher Quality Grants Program, \$51,881.04, February 2013 – May 2014.

KSU Math Circle, PI V. Watson, Co-PIs M. Garner and T. Rudchenko, National Association of Math Circles, \$1500, September 2012 – May 2013.

Kennesaw State University Math Circle, PI V. Watson, Co-PIs M. Garner and T. Rudchenko, Dolciani Mathematics Enrichment Grants, \$5656, May 2012 – September 2012.

Math Teachers' Geometry Circle, PI V. Watson, Co-PIs M. Garner and B. Rogers, Improving Teacher Quality Grants Program, \$43,546, February 2012 – March 2013.

Establishing the Metro Atlanta Math Teachers' Circle, M. Garner and B. Rogers, National Association of Math Circles, \$2,000, September 2011 – May 2012.

Teacher Quality Partnership (TQP) Mathematics Teachers' Circles, PI V. Watson, Co-PIs M. Garner and B. Rogers, Teacher Quality Partnership of KSU, \$135,213, September 2010 – September 2011.

TQP: Vertically Articulated Professional Development Schools, PI Arlinda Eaton and Steven Constantino, Co-Project Directors Bernadette Musetti, Laura Kelley, and Mary Garner, Teacher Quality Partnership, \$9,075,295, October, 2009.

Using Literature to Promote Mathematical Understanding II, PI M. Garner, Co-PIs B. Edwards and J. Derado, Teacher Quality Grant (Georgia), \$38,008, 2009.

Using Literature to Promote Mathematical Understanding I, PI M. Garner, Co-PIs B. Edwards and J. Derado, Teacher Quality Grant (Georgia), \$21,621, 2007.

Developing Materials for High School Mathematics I. PI W. Sanchez, Co-PIs M. Fox, M. Bell and M. Garner, Teacher Quality Grant (Georgia), \$49,583, 2006.