

Department of Mathematics; University of Kentucky; Lexington, Kentucky 40506  
859-257-6792; ewhitaker@uky.edu

## EDUCATION

Ph.D., Mathematics, The Ohio State University

M.S., Mathematics, The Ohio State University

B.S. in mathematics, *summa cum laude*, Birmingham-Southern College

B.A. in music, *summa cum laude*, Birmingham-Southern College

## EMPLOYMENT

Senior Lecturer, University of Kentucky, July 2020 – present

Lecturer, University of Kentucky, August 2014 – June 2020

Visiting Assistant Professor, Otterbein University, August 2012 – June 2014

Lecturer, The Ohio State University, January 2012 – June 2012

Graduate Teaching Assistant, The Ohio State University, 2002 – 2011

Visiting Instructor (full time), Wittenberg University, August 2000 – May 2002

University of South Carolina at Spartanburg, August 1999 – June 2000

Tutor Coordinator for the Opportunity Network, a Student Support Services program, part of TRIO.

Adjunct Instructor, Department of Mathematics

Instructor (full time), Louisiana State University, August 1997 – May 1999

Teaching Assistant, University of Texas at Austin, August 1993 – May 1997

## TEACHING AWARDS

University of Kentucky, Provost's Outstanding Teaching Award, 2022

Breaking Barriers Award; recognizing efforts to include students who use the Disability Resource Center at the University of Kentucky; 2019

Award for Excellence in Teaching Large Courses, College of Arts and Sciences, University of Kentucky, 2018

2003 – 2004 Distinguished Graduate Teaching Associate award; Mathematics Department, The Ohio State University

2002 – 2003 Distinguished First-Year Graduate Teaching Associate award; Mathematics Department, The Ohio State University

Most Accommodating Faculty/Staff Award; one of ten university-wide awards from students in Disability Services, Louisiana State University, 1999

Dodd Teaching Excellence Award; Mathematics Department, University of Texas at Austin, 1994

## TEACHING

## Courses taught at the University of Kentucky

MA 109	College Algebra (Falls 2020, 2021, 2023)
MA 110	Algebra and Trigonometry for Calculus (Fall 2019, Spring 2020) Coordinator Fall 2019 – Spring 2020
MA 111	Contemporary Mathematics (every Fall term 2014 – 2018)
MA 114	Calculus II Coordinator Fall 2023 Lectures: Springs 2019, 2021, 2022, and Fall 2023 Recitations: Fall 2022
MA 123	Elementary Calculus (every term Fall 2014 – Spring 2019) Coordinator Fall 2015 – Spring 2019 Co-coordinator Fall 2014 – Spring 2015
MA 214	Calculus IV (Ordinary Differential Equations) (Spring 2018)
MA 322	Matrix Algebra (Springs 2015, 2016, 2017)

## Courses taught at Otterbein University

Small Classes	Prerequisite to College Mathematics, Calculus I, Statistics I, Advanced Calculus for Mathematics Teachers.
---------------	---

## Courses taught at The Ohio State University (quarter system)

Large Lectures	Business Calculus II, Calculus I, Calculus for Architects.
Small Classes	Precollege Mathematics, Excursions in Mathematics (topics course for non-majors), Business Calculus I, Calculus I and II.
Recitations	Basic College Mathematics, Business Calculus I, Calculus I with review, Calculus I, II and III, Multivariable Calculus and Differential Equations.

## Courses taught at Wittenberg University

Small Classes	The Language of Mathematics (topics course for non-majors), Elementary Functions, Calculus I, Computing in the Arts and Sciences.
---------------	---

## Courses taught at the University of South Carolina at Spartanburg

Small Classes	Basic Algebra and Business Calculus.
---------------	--------------------------------------

## Courses taught at Louisiana State University

Small Classes    Basic Algebra, Trigonometry, Contemporary Mathematics (topics course for non-majors), The Nature of Mathematics (sequel to Contemporary Mathematics), Business Calculus, Calculus I.

## Courses taught at the University of Texas at Austin

Recitations        Business Calculus, Calculus I and II, Multivariable Calculus, Differential Equations.

## PROFESSIONAL SERVICE

CRAFTY committee member (Curriculum Renewal Across the First Two Years) of the Mathematical Association of America (MAA), January 2019 – present

Member of the Editorial Board for FOCUS magazine, an MAA Publication; March 2022 – present.

Student Chapter Coordinator of the Kentucky Mathematical Association of America (KY MAA), Spring 2018 – present (elected to two 3-year terms)

Co-organizer of contributed talk session on Implementing Corequisite Education at MathFest, Tampa, 2023

Co-organizer of contributed talk session on Innovative Ideas in Teaching Mathematics – Lessons from the Pandemic and its Aftermath at MathFest, Philadelphia, 2022

Attending Coreq Community of Practice Meetings (CPE), Fall 2022 - present

Attending Academic Readiness Indicators Monthly Meetings (CPE), Fall 2020

KY MAA Nominating Committee, Fall 2017 – Spring 2018

MAA Instructional Practices Guide focus group, January 2016

CONSTUM (Committee on Student Members) of the Ohio MAA Fall 2013-Spring 2015

Graduate student representative at the national convening of the Carnegie Initiative on the Doctorate (CID), Augusts 2004 and 2005

Invited graduate student and panelist, Nebraska Conference for Undergraduate Women in Mathematics, February 2004

## COLLEGE and UNIVERSITY SERVICE

College of Arts and Sciences Advising Director Search Committee member, Fall 2023

APP Advisory Board member, Fall 2019 – present

Member of the Arts & Sciences Dean's Search Committee, Nov – Dec 2020 and October 2021 – May 2022

Undergraduate Council, Fall 2019 – Spring 2021  
Education Policy Committee (College of A&S), Spring 2019  
Senate Retroactive Withdrawals Committee, Fall 2018 – Spring 2019  
University Senate, Fall 2017 – Spring 2018  
Senate Academic Programs Committee, Fall 2017 – Spring 2018  
Faculty-Student Mentoring Program (College of A&S), Fall 2015

#### DEPARTMENTAL SERVICE

Director of Service Courses, July 2019 – present  
Teaching Postdoc Mentoring Committee Co-Chair, July 2022 – present  
Executive Committee member, Fall 2015 – Spring 2016 and Fall 2020 – present  
Lecturer Hiring Committee Co-chair, Fall 2021 – Spring 2022  
Coordinator of Algebra and Trig for Calculus (MA 110), August 2019 – Spring 2020  
Coordinator of Elementary Calculus (MA 123), Fall 2015 – Spring 2019  
Hiring Committee member (Lecturer Position), Spring 2020;  
also Fall 2015 – Spring 2016  
REEF Polling Training Session, organizer and leader, August 2016, August 2017,  
January 2018, August 2018  
Summer Teaching Supervisor, Summers 2015 – 2018  
Lecturer Rules Committee member, August 2018  
Hiring Committee Chair (Lecturer Position), Fall 2016 – Spring 2017  
Clicker Selection Committee (chair), Spring 2016  
Basic Clicker Training session, organizer and leader, August 2015  
Teaching Workshop co-organizer, *Clickers in the Classroom*, March 2015

#### SERVICE AT PREVIOUS UNIVERSITIES (selected)

Curriculum Committee (University-wide), Otterbein University, 2013-2014  
WIDER Project Advisory Team (NSF grant for STEM education at Otterbein  
University), January 2014 – June 2014  
CID committee (Carnegie Initiative on the Doctorate); Mathematics Department,  
The Ohio State University (OSU) August 2004 – August 2005  
Graduate Student Representative; Graduate Studies Committee, Mathematics  
Department, OSU, 2004 – 2005  
Facilitated workshops for the University-wide Orientation on Teaching & Learning:  
A conference for new TAs; OSU, Septembers 2005, 2006, and 2007

Assisted with the Young Mathematicians Conference, OSU, Augusts 2005, 2006, 2007, and 2009

Coordinator for administering Mathematics Department proficiency exams, OSU, Autumn 2006, 2009 and 2010, and assisted in Autumn 2005

Textbook selection committee member for trigonometry course, Louisiana State University, 1998 – 1999

## PUBLICATIONS

erica Whitaker, Allison Henrich and Matthew Pons: “*The T. Christine Stevens Award for Leadership Development*”, MAA FOCUS Oct/Nov 2023

Bonnie K. Ponce and erica Whitaker: “*Create Your Own Problem Solving Groups*”, MAA FOCUS April/May 2023

Ben Braun, Uwe Nagel and erica Whitaker: “*Supporting First-Year Mathematics Graduate Students at the University of Kentucky*”, AMS Notices December 2022

erica Whitaker: *Congruence and Noncongruence Subgroups of  $\Gamma(2)$  via Graphs on Surfaces*, arXiv:1307.7113 [math.NT]

Jeff Boersema and erica Whitaker: “*Knots in Four Dimensions and the Fundamental Group*”; Rose-Hulman Undergraduate Mathematics Journal, vol. 4, Issue 2, 2003

## PROFESSIONAL DEVELOPMENT ACTIVITIES

Attended a MAA Minicourse on “How to Write an Excellent Expository Article” by Della Dumbaugh and Tom Edgar, MathFest, August 2023

Participated in the 2023 Student Success Summit, February 2023

Selected for the Women’s Executive Leadership Development Program (WELD) at UK (2021)

“Active Learning in Mathematics Classes”, discussion led in the UK Math Department Teaching and Learning Seminar, September 2021

Participated in the KY ACE Women’s Network Workshop, “Analyzing Leadership Strategies: Approaches for a Changing Higher Education Landscape” via Zoom, October 2020

Participated in the UTK CoMInDS (College Mathematics Instructor Development Source) 2019 Workshop on Improving the Preparation of Graduate Students to Teach Undergraduate Mathematics at the University of Tennessee Knoxville, March 2019

Sharing Successes in STEM workshop contributor/participant, Center for the Enhancement of Learning and Teaching (CELT) at UK, September 2018

“Time Management: Using Activities in Lecture”, talk given in the UK Math Department Teaching and Learning Seminar, April 2018

Attended “Linear Algebra in Computer Graphics and Data Mining”, an MAA mini-course by Tim Chartier at the Joint Mathematics Meetings, January 2017

Attended “College Readiness: Overcoming Barriers to Success in Mathematics” workshop about improving developmental mathematics education at Morehead University, September 2016

Attended “Improving the Preparation of Graduate Students to Teach Undergraduate Mathematics”, a workshop sponsored by CoMInDs (College Mathematics Instructor Development Source) of the MAA at the University of Maine; June 2016

Attended “Identifying and Addressing Difficult Concepts for Students in the Introductory Statistics Course,” a workshop at Columbus State Community College, December 2012

Participant in the Ohio NExT Workshop for new faculty; Fall 2012, Spring 2013, Fall 2013 and Fall 2000 – Spring 2002

Supplemental Instruction Supervisor Training; Kansas City, Missouri, March 2000

## RESEARCH ACTIVITIES

“Constructing Noncongruence Subgroups using Graphs on Surfaces.” Talk given at the UK Topology Seminar, March 2016

“Congruence and Noncongruence Subgroups of  $\Gamma(2)$  via Graphs on Surfaces.” Talk given at the Joint Mathematics Meetings, Boston, January 2011

“Children’s Drawings and Noncongruence Subgroups.” Talk given at Binghamton University Graduate Conference in Algebra and Topology, November 2010

Attended “Interactions Between Hyperbolic Geometry, Quantum Topology and Number Theory,” a workshop at Columbia University, June 2009

“Children’s Drawings and Subgroups of  $PSL_2(\mathbb{Z})$ .” Talk given at OSU Graduate Student Seminar in Number Theory, October 2008

“Children’s Drawings.” Talk given at the Sixth Annual Graduate Student Topology Conference, University of Illinois at Urbana-Champaign, March 2008

“Life in the Projective Plane: Constructing and Visualizing  $\mathbb{RP}^2$ .” Invited talk at Converse College, April 2000

“Life in the Projective Plane: Constructing and Visualizing  $\mathbb{RP}^2$ .” Talk given for University of South Carolina at Spartanburg, (USCS, Wofford College, and Converse College colloquium series), April 2000

“Critical Points of Knots in 4 Dimensions.” Talk given at the Joint Mathematics Meetings, Cincinnati, January 1994