

CONTACT INFORMATION	827 Patterson Office Tower Lexington, KY 40506-0027	508-207-7970 hotchkiss@uky.edu
TEACHING INTERESTS	Calculus, differential equations, pre-calculus, college algebra, linear algebra, statistics.	
ACADEMIC EXPERIENCE	University of Kentucky , Lexington, KY. Teaching Postdoctoral Scholar	August 2022 – Present
	University of Delaware , Newark, DE. Temporary Assistant Professor	August 2018 – July 2022
	Iowa State University , Ames, IA. Lecturer	August 2017 – May 2018
	Iowa State University , Ames, IA. Graduate Teaching Assistant	August 2012 – August 2017
EDUCATION	Iowa State University , Ames, IA Ph.D., Mathematics, August 2017 <ul style="list-style-type: none"> • Thesis Topic: <i>Fourier Bases on the Skewed Sierpinski Gasket</i>. • Advisor: Eric Weber Smith College , Northampton, MA Post-Baccalaureate, Mathematics, May 2012 Haverford College , Haverford, PA B.A., History, May 2006 <ul style="list-style-type: none"> • Minor: Mathematics 	
TEACHING EXPERIENCE	Instructor of Record: Introduction to Contemporary Math, Fall 2022. College Algebra, Summer 2014 and Fall 2022. Analytical Geometry and Calculus B, Spring 2019, 2020, 2021 and 2022. Calculus 1 (for social science and business), Fall 2018, Summer 2019, Fall 2019, 2020, 2021. Analytical Geometry and Calculus C, Spring 2019 and Summer 2021. Engineering Mathematics I (Linear Algebra and Differential Equations), Fall 2019, Spring 2020, and Spring 2021. College Algebra and Statistics, Fall 2020 and Winter 2021. Differential Equations, Summer 2017 and Spring 2019. Applied Trigonometry, Fall 2017 and Spring 2018. Calculus 1, Fall 2015, Spring 2016, and Spring 2018. Calculus 2, Summer 2016. Course Coordinator: Analytical Geometry and Calculus B, Spring 2022. Recitation Leader: Pre-Calculus, Fall 2014, Spring 2015, and Fall 2017. Calculus 2, Spring 2017. Calculus 1, Fall 2012 and Fall 2016 Calculus 3, Spring 2013.	

AWARDS Graduate College Teaching Excellence Award, Iowa State University, Fall 2016.
 Mathematics Department Research Excellence Award, Iowa State University, 2016-17.

PUBLICATIONS **C. Hotchkiss** and E.S. Weber, “A Fast Fourier Transform for Fractal Approximations.” Available: arXiv: 1607.03690 [math.FA]. In *Excursions in Harmonic Analysis: the February Fourier Talks at the Norbert Wiener Center*, Volume 5, 315–329, 2017.

PAPERS IN PREPARATION **C. Hotchkiss**, “A Sequence of Fourier Bases for a Certain Sierpinski-Type Fractal Measure.”

PRESENTATIONS “Oral Exams, and Other Online Experiments.” Teaching Seminar, University of Delaware, Newark, DE, September 10, 2021.
 “Engaging Students in Asynchronous Online Courses.” Teaching Seminar, University of Delaware, Newark, DE, October 23, 2020.
 “Fourier Bases for Certain Fractal L^2 Spaces.” AMS Special Session on Fractal Geometry, Dynamical Systems, and Applications, Joint Math Meetings, Denver, CO, January 2020.
 “Fourier Bases on the “Skewed Sierpinski Gasket.” AMS Contributed Paper Session on Sequences, Approximations, and Fourier Analysis, Joint Math Meetings, January 18, 2019.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Smooth and Non-Smooth Harmonic Analysis (S-NSHA) Symposium, Ames, IA, June 3, 2018.
 “Hadamard Matrices and Orthonormal Bases.” Smooth and Non-Smooth Harmonic Analysis (S-NSHA) Bootcamp, Ames, IA, June 2, 2018.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” 7th International Conference on Computational Harmonic Analysis, Nashville, TN, May 15, 2018.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Poster. February Fourier Talks, College Park, MD, February 15, 2018
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Special Session on Applied Harmonic Analysis: Frames, Samplings and Applications, III (last-minute replacement), AMS Fall Southeastern Sectional Meeting, Orlando, FL, September 24, 2017.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Poster. February Fourier Talks, College Park, MD, February 16, 2017
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” AMS Session for Contributed Papers on Topics in Analysis, Joint Math Meetings, Atlanta, GA, January 6, 2017.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Iowa-Nebraska Functional Analysis Seminar, Des Moines, IA, November 5, 2016.
 “Fourier Bases on the ‘Skewed Sierpinski Gasket.’” Analysis Seminar, Iowa State University, Ames, IA, October 26, 2016.
 “A Fast Fourier Transform for Fractal Approximations.” Special Session on Frames, Harmonic Analysis, and Operator Theory, IV, AMS Spring Central Sectional Meeting, Fargo, ND, April 17 2016.

“In Search of a Fourier Frame for the Sierpinski Gasket.” Preliminary Exam, Iowa State University, April 22, 2016.

“Fourier Frames for the Cantor-4 set.” Analysis Seminar, Iowa State University, March 31 and April 6, 2016.

“A Fast Fourier Transform for Fractal Approximations.” Poster. February Fourier Talks, College Park, MD, February 18, 2016

“The Life and Death of a Geodesic.” With Arielle McCoy, Alison Pryor, Kirin Khan. AMS-MAA-SIAM Special Session on Research in Mathematics by Undergraduates and Students in Post-Baccalaureate Programs. Joint Math Meetings, Boston, MA, January 7, 2012.

CONFERENCES
AND WORKSHOPS
ATTENDED

Summer Institute on Teaching (SIT)	Newark, DE, June 2021
AIM Math Teacher’s Circle Network Virtual Workshop,	Online, July 2020.
Joint Math Meetings	Denver, CO, January 2020
Joint Math Meetings	Baltimore, MD, January 2019
CBMS Conference on Harmonic Analysis: Smooth and Non-Smooth	Ames, IA, June 2018
7th International Conference on Computational Harmonic Analysis	Nasheville, TN, May 2018
Iowa-Nebraska Functional Analysis Seminar	Omaha, NB, April 2018
February Fourier Talks	College Park, MD, February 2018
Iowa-Nebraska Functional Analysis Seminar	Des Moines, IA, November 2017
AMS Fall Southeastern Section Meeting	Orlando, FL, September 2017
Midwest Big Data Summer School	Ames, IA, July 2017
Nebraska-Iowa Functional Analysis Seminar	Omaha, NB, April 2017
February Fourier Talks	College Park, MD, February 2017
Joint Math Meetings	Atlanta, GA, January 2017
Iowa-Nebraska Functional Analysis Seminar	Des Moines, IA, November 2016
Iowa Section of the MAA Centennial Meeting	Des Moines, IA, October 2016
Workshop on Noncommutative Analysis	Iowa City, IA, June 2016
Iowa-Nebraska-Kansas Functional Analysis Seminar	Des Moines, IA, April 2016
AMS Spring Central Sectional Meeting	Fargo, ND, April 2016
February Fourier Talks	College Park, MD, February 2016
Nebraska-Iowa Functional Analysis Seminar	Omaha, NB, March 2015
Joint Math Meetings	Boston, MA, January 2012

SPECIAL TRAINING

“Self-Efficacy & Achieving Independence Workshop,” The Graduate School, University of Kentucky, December 9, 2022.

“Take Your Canvas Course to the Next Level,” “Introduction to Feedback Fruits Peer and Group Member Review Tools,” “Questions and more questions: 3 strategies to leveraging student learning,” and “What’s New with Poll Everywhere.” In Keep Calm and Teach On, Faculty Commons, University of Delaware, February 2022.

“Diversity, Equity, Inclusion, & Belonging in the Classroom: Higher Ed Faculty Training,” Cengage Webinar, January 2022.

“Effective, helpful multiple choice questions,” “Questions, questions, and more questions: Using Just-in-time teaching, Think-Pair-Share, and Peer Instruction to leverage student learning,” “Interactive Technology for Your Classes,” “Canvas New Quizzes - An Introduction,” and “Using Canvas to Engage and Retain Students with Communication and Feedback Tools.” In Keep Calm and Teach On, Faculty Commons, University of Delaware, August 2021.

“Oral Exams: The Secret to Assessing Students During COVID,” Cengage Webinar, November 2020.

“Exams, Discussion Boards, Projects – Oh My! Assessing Learning in All Course Formats,” Cengage Webinar, August 2020.

“Lifelong Learners: Teaching Students How to Learn,” “Instructor Panel: Teaching During COVID-19,” “Instructor Panel: 5 Real Life Examples of Tools Used to Make and Deliver Videos,” “Optimizing Your Course for Online Delivery Using WebAssign,” “Student Panel: Successful Approaches to Help Students Stay Engaged and Motivated in an Online Course,” “Dealing with the Learning Gap to Fuel Student Success.” In Cengage Summer of Learning Webinar Series, Online, July 2020.

“Create a Welcoming Atmosphere to Lower Students’ Affective Filters,” “Engaging Students on the First Day of Class,” “Interactive Technology for Your Classes,” and “Potpourri of Teaching Development Opportunities: Defining the alphabet soup.” In Keep Calm and Teach On, Faculty Commons, University of Delaware, August 2019.

“Conversations on Teaching Inclusively.” Iowa State University, February 2018.

“Workshop: Inclusive Classroom Faculty Development Workshop.” Iowa State University, November 2017.

“Workshop: Documenting Your Teaching using the DART Matrix.” Iowa State University, November 2017.

“Workshop: Engagement Strategies for Every Classroom.” Iowa State University, September 2017.

“LGBTQIA+ 101: Best Practices for Supporting Students.” LGBTSS Center, Iowa State University, February-March 2017.

“Make it Stick.” Graduate Teaching and Learning Community, Iowa State University, Spring 2017.

“The Research-Based Flipped Classroom: Team-Based Learning.” Iowa State University, June 2016.

“Team-Based Learning.” Graduate Teaching and Learning Community, Iowa State University, Fall 2015.

“Pathways to Precalculus” workshop at Iowa State University. Conducted by Dr. Marilyn Carlson (Arizona State University). August 2014; Pathways Certification awarded Spring 2016.