Kelly A. Ayres

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linkedin.com/in/kellyayres

EDUCATION

Doctor of Philosophy (PhD) in Public Health Studies Aug 2018-present
Concentration in Biostatistics GPA: 3.79/4.00
Saint Louis University (SLU) St. Louis, MO
Dissertation: Using the Data Augmentation Algorithm to Infer the County of Residence for COVID-19 Vaccine Recipients
Doctoral Adviser: Dr. Steve Rigdon
Dissertation Committee:
Dr. Travis Loux
Dr. Fadel Megahed
Dr. Steve Rigdon (Chair)

Certificate in Online University Teaching Skills May 2023
Saint Louis University (SLU)

Principles Certificate, Certificate in University Teaching Skills (CUTS) November 2020
Saint Louis University (SLU)

Post-Graduate Training in Mathematics and Statistics January 2014-December 2017
University of Missouri-St. Louis GPA: 3.63/4.00
St. Louis, MO

Master of Science (MS) in Mathematics Degree Awarded: August 2013
Concentration in Statistics and Operations Research GPA: 3.33/4.00
Southern Illinois University Edwardsville (SIUE) Edwardsville, IL
Master's Project:
Bayesian and Frequentist Hypothesis Testing in Analysis of Variance
Master's Adviser: Dr. Andrew Neath

Master of Science (MS) in Economics and Finance Degree Awarded: August 2010
Concentration in Applied Economics GPA: 3.36/4.00
Southern Illinois University Edwardsville (SIUE) Edwardsville, IL

Bachelor of Arts (BA) in Economics Degree Awarded: December 2008
University of Illinois at Urbana-Champaign GPA: 3.46/4.00
Urbana, IL

RELEVANT WORK EXPERIENCE

Statistical Data Analyst
Department of Psychiatry — May 2023-present
Washington University School of Medicine — St. Louis, MO

- Statistical Data Analyst in the Department of Psychiatry at Washington University School of Medicine
- Edit and verify records in databases (REDCap)
- Perform data management tasks including data merges
- Perform statistical data analyses using R and SPSS
- Run trend analyses to examine opioid use and misuse patterns
- Calculate and analyze descriptive statistics and run statistical tests in R and SPSS
- Perform statistical analyses and assist in manuscript writing for publication

Secretary and Chapter Member
ASA St. Louis Chapter — January 2023-present
American Statistical Association — St. Louis, MO

- Elected and served as Secretary of the St. Louis Chapter of the American Statistical Association from January 2023-December 2023
- Designed and disseminated marketing flyers for chapter events
- Designed and updated chapter website
- Served as a judge for virtual Science Fairs, judged projects for statistical soundness of project design in April 2023 and April 2024

Statistical Methodology Consultant
Private (Self) — January 2023-present

- Provide advice as to which statistical methodology to use for non-statistics based dissertations and research papers
- Consulted on EdD dissertations and doctoral degree dissertations in business
- Provide expert knowledge on statistical methodologies in particular use of logistic regression and techniques in survival analysis

Instructor in Public Health
Department of Epidemiology and Biostatistics — July 2022-present
Saint Louis University — St. Louis, MO

- Full-time faculty in the Epidemiology and Biostatistics department
- Teach large graduate public health courses both in person and online (approx. 15-70 students)
- Teach core public health and biostatistics courses in the Master of Public Health (MPH) graduate program
- Develop course content including creating worksheets and data sets for instruction
- Supervise graduate teaching assistants in BST 5030 and BST 5100

- Hold office hours and review sessions in person and online via Zoom
- Teach SPSS, R, SAS, and Excel for data analysis
- Make supplementary coding Zoom videos to enhance student learning
- Grade student work
- Plan departmental events for faculty and students

Courses taught as instructor of record:

BST 5100: Introduction to General Linear Modeling: Spring 2023 (1), Spring 2024 (1), Spring 2025 (2)
BST 5030: Statistical Programming and Study Planning: SAS: Spring 2023 (1), Spring 2024 (1), Fall 2024 (1)
PUBH 5010: Mission and Practice of Global Public Health, Fall 2022 (2), Fall 2023 (1), Fall 2024 (1)
PUBH 5040: Generating Evidence from Public Health Data: Fall 2022 (2), Spring 2023 (1), Fall 2023 (2), Spring 2024 (1), Fall 2024 (2), Spring 2025 (1)
BST 3200: Applied Biostatistics II, Saint Louis University, Spring 2024 (1)

Lecturer (Established)

Department of Economics and Finance — August 2015-present
Southern Illinois University Edwardsville — Edwardsville, IL

- Teach introductory economics and management science courses and hold office hours
- Teach traditional face to face courses and online/blended format courses
- Teach large class sizes (over 70 students in economics courses)
- Teach full-semester courses and shortened, intensive summer courses
- Developed Excel assignments with real world applications for MS 251: Statistical Analysis for Business Decisions
- Grade student work

Courses taught as instructor of record:

ECON 111: Principles of Macroeconomics (online)
ECON 112: Principles of Microeconomics (in person and online)
MS 250: Mathematical Methods for Business Analysis (online, blended, and in person)
MS 251: Statistical Analysis for Business Decisions (online, blended, and in person)
MBA 521: Quantitative Analysis (blended)

Online MBA Course Facilitator

School of Business/Economics & Finance/Management & Marketing — January 2019-present
Southern Illinois University Edwardsville — Edwardsville, IL

- Course facilitator for large (class size of over 100 students) online Master of Business Administration (MBA) courses
- Serve as point of contact for content level questions for graduate courses
- Assist graduate students with questions related to statistics and economics
- Grade student work including exams and case studies
- Complete assessments of MBA students regarding learning objectives of the program
- Develop review material for student use

- Hold online Zoom sessions to help reinforce course material to students
- Course facilitator for MBA 521: Quantitative Analysis (9 sections) and ECON 528: Managerial Economics (12 sections)

Adjunct Mathematics Instructor
Department of Mathematics August 2013-present
Lewis and Clark Community College Godfrey, IL

- Teach mathematics and statistics courses and hold office hours
- Teach full-semester courses and shortened, intensive summer courses
- Teach traditional face to face courses and online courses
- Developed extensive worksheets, study guides, and extra examples for all courses, especially the MATH 145: General Education Statistics and MATH 131: College Algebra courses
- Grade student work
- Teach traditional courses and enhanced courses with corequisites

Courses taught as instructor of record:
MATH 031: College Algebra Support
MATH 038: General Education Math Support
MATH 045: Statistics Support
MATH 111: Prealgebra
MATH 116: Intermediate Algebra
MATH 129: Business Mathematics (online and in-person)
MATH 131: College Algebra
MATH 132: Trigonometry
MATH 134: Precalculus
MATH 137: Elementary Mathematical Modeling
MATH 138: General Education Mathematics
MATH 145: General Education Statistics
MATH 165: Calculus for Business and Social Science (online and in-person)
MATH 235: Statistics
STSK 132: Integrated Study Skills

Private Mathematics and Statistics Tutor January 2023-June 2024
Department of Mathematics and Statistics St. Louis, MO
Saint Louis University

- Tutor STAT 1300: Elementary Statistics w/ Computers students
- Tutor STAT 3850: Foundations of Statistics students
- Tutor OPM 5020: Applied Business Statistics students
- Tutor CSCI 1060: Scientific Programming students
- Tutor Matlab programming
- Tutor Calculus I and Calculus II
- Tutor R programming
- Tutor advanced statistics

- Tutor quantitative MBA courses (including business statistics, data analytics, and economics)
- Tutor Trigonometry and PreCalculus students

MPH Student Capstone Adviser
College for Public Health and Social Justice January 2024-May 2024
Saint Louis University St. Louis, MO

- Advised a group of MPH students on their capstone projects in Spring 2024 semester
- Met regularly with 2nd year MPH students via Zoom to advise them as to which statistical methodology to use on their MPH capstone projects
- Provided advice, feedback, and support as to how to problem solve their research concerns for their Capstone projects

Adjunct Instructor in Biostatistics
Department of Epidemiology and Biostatistics October 2019-June 2022
Saint Louis University St. Louis, MO

- Teach undergraduate and graduate biostatistics courses both in person and online
- Teach core biostatistics courses in the Master of Public Health (MPH) graduate program
- Hold office hours and review sessions online via Zoom
- Teach SAS, R, and SPSS statistical programming
- Develop homework, projects, and exams utilizing R, SAS, and SPSS
- Grade student work

Courses taught as instructor of record:
BST 3000: Introduction to Statistical Computing: Spring 2020 (1), Spring 2021 (1)
BST 5100: Introduction to General Linear Modeling: Spring 2021 (1)
BST 5030: Statistical Programming and Study Planning: SAS: Spring 2022 (1)
PUBH 5040: Generating Evidence from Public Health Data: Fall 2021 (1), Spring 2022 (1)
Teaching Assistant:
BST 3100: Applied Biostatistics I, Fall 2021 (1)

Lecturer (Established)
Department of Mathematics and Statistics August 2014-May 2022
Southern Illinois University Edwardsville Edwardsville, IL

- Teach mathematics, quantitative reasoning, and statistics courses and hold office hours
- Supervise graduate student teaching assistants when teaching MATH 120E: Enhanced College Algebra, STAT 244: Statistics, and STAT 380: Statistics for Applications
- Teach traditional face to face courses and online/blended format courses
- Developed a set of extensive guided notes for MATH 120e: Enhanced College Algebra to enhance student learning
- Teach R programming in STAT 244 and STAT 380
- Teach large statistics courses

- Grade student work

Courses taught as instructor of record:
QR 101: Quantitative Reasoning (in-person and online)
MATH 120: College Algebra
MATH 120e: Enhanced College Algebra
MATH 125: Pre-calculus Mathematics with Trigonometry
STAT 107: Concepts of Statistics (in-person and online)
STAT 244: Statistics
STAT 380: Statistics for Applications

Private Mathematics and Statistics Tutor August 2021-May 2022
Department of Mathematics and Statistics St. Louis, MO
Saint Louis University

- Tutor Advanced Placement (AP) Calculus students

Adjunct Math GED Instructor May 2021-August 2021
Department of Adult Education Godfrey, IL
Lewis and Clark Community College

- Teach mathematics review sessions for GED preparation

Adjunct Statistics Instructor
Department of Mathematics and Statistics July 2018-May 2021
Saint Louis University St. Louis, MO

- Teach mathematics and statistics courses in person and online and hold office hours
- Teach R statistical programming
- Grade student work

Courses taught as instructor of record:
STAT 1100 Introduction to Statistics: Spring 2019 (2), Fall 2020 (1), Spring 2021 (2)
MATH/STAT 1300 Elementary Statistics w/Computers: Fall 2018 (1), Spring 2020 (2), Fall 2020 (1)

Adjunct Mathematics Instructor
Department of Mathematics April 2015-December 2018
Southwestern Illinois College (SWIC) Belleville, IL

- Teach mathematics and statistics courses and hold office hours
- Teach full-semester courses and shortened, intensive summer courses
- Grade student work

Courses taught as instructor of record:
MATH 094: Basic Algebra
MATH 107: General Education Statistics
MATH 112: College Algebra
MATH 114: Trigonometry

MATH 191/BUS 205: Introduction to Statistics/Business and Economic Statistics
MATH 203: Analytic Geometry & Calculus I

Adjunct Mathematics Instructor
Department of Mathematics and Computer Science January 2014-May 2016
University of Missouri at St. Louis St. Louis, MO

- Teach mathematics and statistics courses and hold office hours
- Teach full-semester courses and shortened, intensive summer courses
- Grade student work

Courses taught as instructor of record:
MATH 005: Intermediate Algebra
MATH 1020: Contemporary Mathematics
MATH 1035: Trigonometry
MATH 1105: Basic Probability and Statistics
MATH 1320: Applied Statistics I

Research Assistant (Volunteer)
Economics and Finance Department January 2011-December 2013
Southern Illinois University Edwardsville Edwardsville, IL

- Surveyed literature and wrotte literature reviews
- Collected data, organized data, and analyzed data from large economic databases
- Write parts of published journal article

Graduate Assistant
School of Business Dean's Office April 2011-May 2013
Southern Illinois University Edwardsville Edwardsville, IL

- Collected, organized, and analyzed undergraduate and graduate student assessment data and utilized this data to create tables for reports for deans and department chairs of the School of Business
- Utilized Excel and Access to perform data analysis for accreditation reports
- Tracked and analyzed internship evaluation data for School of Business students and used this data to create tables for the School of Business reports
- Assisted with planning the School of Business Hooding Ceremony for graduate students

Transcriptionist, File Clerk, and Front Desk May 2005-November 2012
Dr. Robert Ayres, MD, Family Physician Edwardsville, IL

- Typed transcription for a large family physician practice
- Checked patients in and out of the office
- Maintained physician records and files

Teaching Assistant
Department of Mathematics and Statistics January 2011-May 2011

Southern Illinois University at Edwardsville Edwardsville, IL

- Taught the lab for three sections of Calculus I
- Provided one-on-one tutoring in the Mathematics and Statistics Tutoring Lab

Graduate Assistant
Department of Economics and Finance May 2010-August 2010
Southern Illinois University at Edwardsville Edwardsville, IL

- Graduate assistant for Management Science 250: Mathematical Methods for Business Analysis course

International Trade Assistant
Illinois SBDC International Trade Center at SIUE January 2009- May 2010

- Southern Illinois University at Edwardsville Edwardsville, IL
- Provided export assistance and international market analysis to small and medium sized firms in Southern Illinois
- Performed extensive market research and completed individualized research projects for clients
- Utilized international databases to provide export statistics to clients and developed potential contacts for clients

Graduate Assistant
Department of Economics and Finance October 2009- May 2010
Southern Illinois University at Edwardsville Edwardsville, IL

- Graduate assistant for Principles of Macroeconomics course
- Assisted professor with editing and reviewing a textbook

Adjunct Business Instructor
Department of Business Administration January 2010-May 2010
Sanford-Brown College Collinsville, IL

- Taught principles of economics and finance courses
- Prepared lectures, homework, and exams

Courses taught as instructor of record:
Principles of Economics
Introduction to Finance
Introduction to Economics

Graduate Assistant
Department of Economics and Finance January 2009- May 2009
Southern Illinois University at Edwardsville Edwardsville, IL

- Graduate assistant for Management Science 250: Mathematical Methods for Business Analysis courses

Actuarial Consulting Intern
Human Capital Services June 2008- August 2008
Towers Perrin St. Louis, MO

- Worked collaboratively on client teams solving retirement related problems
- Completed a research project on minimizing bonus calculation fluctuations for supplemental executive plans
- Utilized statistical software and performed pension actuarial valuations

Strategic Resources Intern January 2008-May 2008
State Farm Insurance Research Center Champaign, IL

- Assisted with State Farm's evaluation of the nationwide Dangerous Intersections Initiative completed in 2003
- Compiled information, made recommendations, and presented findings to State Farm management
- Edited and reviewed data in State Farm's internal databases

Sales Associate November 2006-December 2008
Macy's Midwest Alton, IL

- Opened and closed registers
- Provided excellent customer service
- Worked in all departments as a flyer
- Worked during summers and school breaks during undergraduate studies

Research Assistant
Department of Psychology November 2006-May 2007
University of Illinois at Urbana-Champaign Urbana, IL

- Listened to recorded dialogue and transcribed that dialogue
- Served as a research assistant in Dr. Peggy Miller's Lab

Student Worker
Department of Internal Medicine November 2006-May 2007
College of Medicine, University of Illinois at Urbana-Champaign Urbana, IL

- Provided clerical support to the Department of Internal Medicine
- Proctored exams for the medical school

HONORS: 2010 Economics Alumni Graduate Student Award, 2005-2006 Charles T. Richards Scholarship, University of Illinois Dean's List, Omicron Delta Epsilon, Graduate Assistantship at SIUE (Spring 2009, Summer 2009, Fall 2009, Spring 2010, Summer 2010, Fall 2010, Spring 2011, Summer 2011, Fall 2011, Spring 2012, Summer 2012, Fall 2012, Spring 2013), Graduate Teaching Assistantship at Saint Louis University (Spring 2020, Fall 2021, Spring 2022)

PUBLICATIONS AND WORKS SUBMITTED

Ayres, K., Belasen, A., and Kutan, A. "Does Inflation Targeting Lower Inflation and Spur Growth?" Journal of Policy Modeling. 36(2):373-388.

Ayres, K., et al. (2024). "COVID Vaccine Data Quality, Cleaning, and Management." Submitted to the *Journal of Quality Engineering*.

Marks, L.R., Durkin, M.J., Ayres, K. *et al.* Drug preparation, injection-related infections, and harm reduction practices among a national sample of individuals entering treatment for opioid use disorder. *Harm Reduct J* **21**, 16 (2024). https://doi.org/10.1186/s12954-024-00939-6

Price-Williams, S. R., Reynolds Heck, J, & Ayres, K. (2024). Graduate student advising and support: Roles, responsibilities, and challenges. Submitted to the *NACADA Journal*.

SELECT WORKING PROJECTS

- "Inferring the County of Residence for COVID-19 Vaccinations Using the Data Augmentation Algorithm", working paper at Saint Louis University
- "COVID Data Quality, Cleaning, and Management", working paper at Saint Louis University, under review
- "Increases in Kratom Exposure", working paper at Washington University
- "A Hidden Markov Model for the Reproduction Number of an Infectious Disease", work in progress
- "Estimating the Reproduction Number for COVID-19: A Hidden Markov Model", work in progress

SELECT PRESENTATIONS

- Developed a SAS Certification Club and an R Coding Club for my SLU programming classes, and made weekly presentations to these clubs on Zoom
- May 2021-present: weekly research presentations made to the SLU and Miami University Meetings
- "Healthcare Utilization and the Use of Electronic Health Information", presentation made to Journal Club, Saint Louis University College of Public Health, Spring 2019

ACCREDITATION

GStat Graduate Statistician Accreditation, American Statistical Association, May 2014-present

PROFESSIONAL MEMBERSHIPS

Member, American Mathematical Society, January 2011-present
Member, American Statistical Association, June 2013-present

PROFESSIONAL DEVELOPMENT

- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Dynamic Discussions, one-week online course, September 2024
- Completed "Creating an Inclusive and Supportive Learning Environment," ACUE, Summer 2024
- Completed EDTR 276: Using Blackboard Ultra, Lewis and Clark Community College, Summer 2024
- Completed, "Faculty Foundations", one-week online course, Spring 2024
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Creating Inclusive Online Courses, one-week online course, November 2023
- Attended "Using AI in Your Class…Or Not?", Reinert Center for Transformative Teaching and Learning, Saint Louis University, 2023-2024 Kick-off Workshop Series, August 18th, 2023
- Attended "Culturally Responsive Assessment", Reinert Center for Transformative Teaching and Learning, Saint Louis University, 2023-2024 Kick-off Workshop Series, August 17th, 2023
- Attended Dean of Students Office's annual *Supporting Students of Concern Training* on Tuesday, August 15th, 2023, Saint Louis University
- Attended a two-day workshop on "Using R for Bayesian Spatial and Spatio-temporal Health Modeling", given by Dr. Andrew Lawson, Medical University of South Carolina, June 1st to 2nd, 2023
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Mini-Workshop on Multidisciplinary Teaching, Spring 2023
- Universal Design and the ADA, Reinert Center for Transformative Teaching and Learning and the Center for Accessibility and Disability Resources (CADR), February 2023
- Member, Ignatian Pedagogy Academy, Reinert Center for Transformative Teaching and Learning, Saint Louis University, attend various workshops, Spring 2023-present
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Assessing Online Students, one-week online course, February 2023
- Certificate in Online University Teaching Skills, Saint Louis University, attend various workshops/complete online courses, currently in progress, completed February 2023
- Introduction to R, Professional Development Seminar, Southern Illinois University Edwardsville, January 2023
- Six Sigma Green Belt Series, Professional Development Seminar, Southern Illinois University Edwardsville, Spring 2023

- SQL Programming Series, Professional Development Seminar, Southern Illinois University Edwardsville, Spring 2023
- Power BI Series, Professional Development Seminar, Southern Illinois University Edwardsville, Spring 2023
- Introduction to Python, Professional Development Seminar, Southern Illinois University Edwardsville, Spring 2023
- SAS Programmer Professional Certificate, Coursera, January 2023
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Mini-Workshop on Peer Review/Peer Teaching Techniques, Fall 2022
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, What Inclusive Instructors Do: Focusing on the Practices, Fall 2022
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Universal Design in Online Teaching and Learning, one-week online course, Fall 2022
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Mini-Workshop on Analyzing and Aligning Course and Program Outcomes, Fall 2022
- Attended Focus on Teaching and Technology Conference at University of Missouri St. Louis, Fall 2022
    - Bonus: Tech Trek Presentations: Plickers
    - The Intersection of Accessibility and DEI
    - Using PADLET for Reciprocal Peer Teaching in an Asynchronous Online Course
    - Building Positive Instructor-Student Rapport in an Asynchronous Class
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Engaging the Online Learner, one-week online course, Fall 2022
- Design of Experiments Specialization, Coursera, Fall 2021
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Rubric Construction, It's a Process, June 2021
- Certificate in University Teaching, Saint Louis University, attend various workshops/complete online courses, Program Completed and certificate awarded on November 20, 2020.
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Building Rapport with Students, Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Engaging Academically Diverse Students, Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Privilege in the Classroom, Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Designing, Implementing and Assessing Technology-Based Assignments, Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Introduction to Ignatian Pedagogy**,** Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Against Correction: Giving Effective Feedback, Fall 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Lessons from Cognitive Science for the Classroom, Fall 2020

- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Fall CUTS Book Discussion: Small Teaching: Everyday Lessons from the Science of Learning, Fall 2020
- Attended Focus on Teaching and Technology Conference at University of Missouri St. Louis, Fall 2020,
    - Promoting Active Learning in the Higher Ed Zoom Classroom
    - Collaborative Project-Based Learning in an Online Course
    - Engaging Communities to Keep an Engaged Community
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Concept Maps, Spring 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Exploring Digital Tools for Teaching, Spring 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, How to Implement Backward Design for Your Course Topics and Activities, Spring 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Introduction to Online Teaching, 2-week online course (accelerated), December 2019-January 2020
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Teaching Philosophy (2 week course), Summer 2019
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Course Design (2 week course), Summer 2019
- Reinert Center for Transformative Teaching and Learning, Saint Louis University, Learning Technology (2 week course), Summer 2019
- The Science of How Learning Works, University of Missouri St. Louis Online Course, Summer 2019
- Completed Certificate in University Teaching courses at University of Missouri St. Louis: "Getting Ready to Teach Online"
- Completed "Introduction to Blackboard" training at Lewis and Clark Community College

VOLUNTEER ACTIVITIES

- SLU MPH Capstone Project Adviser, Saint Louis University, Spring 2024
- Secretary for the American Statistical Association (ASA), St. Louis Chapter, January 2023-December 2023
- Eyeglass Liaison, Collinsville Lions Club Noon, Collinsville, IL, March 2019-present
- Panel Judge for Grant Writing course at Southern Illinois University Edwardsville, Spring 2021, Fall 2021, Spring 2022
- Vice President, Collinsville Lions Club Noon, Collinsville, IL, July 2019- July 2020
- Test Proctor, ICTM High School Math Contests regional competition, February 2019
- Member, Collinsville Lions Club Noon, Collinsville, IL, November 2018-present

- Test Proctor, ICTM High School Math Contests regional competition, February 2016
- Volunteer, Girls Empowered by Mathematics and Science (GEMS) Conference, Lewis and Clark Community College, March 2014

SPECIAL SKILLS:

General Computer Systems and Languages: JAVA, Microsoft Office Systems, SQL, Visual Basic

Mathematical Software: Arena, LaTeX, Mathematica, Matlab, Scientific Workplace, C++

Statistical Software: EViews**,** JMP, Minitab, Nimble, R, RStudio, SAS, SPSS, Stan, STATA

COURSES TAUGHT FROM FALL 2013-SUMMER 2022

FALL 2013 (1 class taught)

MATH 129: Business Mathematics, Lewis and Clark Community College, 1 section

SPRING 2014 (5 classes taught)

MATH 11A: Prealgbera I, Lewis and Clark Community College, 1 section
MATH 11B: Prealgebra II, Lewis and Clark Community College, 1 section
MATH 235: Statistics, Lewis and Clark Community College, 1 section
MATH 1035: Trigonometry, University of Missouri St. Louis, 1 section
MATH 1020: Contemporary Mathematics, University of Missouri St. Louis, 1 section

SUMMER 2014 (2 classes taught)
MATH 131: College Algebra, Lewis and Clark Community College, 1 section
MATH 1105: Basic Probability and Statistics, University of Missouri St. Louis, 1 section

FALL 2014 (3 classes taught)
MATH 0005: Intermediate Algebra, University of Missouri St. Louis, 1 section
MATH 1020: Contemporary Mathematics, University of
Missouri St. Louis, 1 section
MATH 120: College Algebra, Southern Illinois University
Edwardsville, 1 section

SPRING 2015 (6 classes taught)
MATH 1020: Contemporary Mathematics, University of Missouri St. Louis, 1 section
MATH 1105: Basic Probability and Statistics, University of Missouri St. Louis, 1 section
QR 101: Quantitative Reasoning, Southern Illinois University Edwardsville, 2 section
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 2 sections

SUMMER 2015 (3 classes taught)
MATH 131: College Algebra, Lewis and Clark Community College, 1 section
MATH 1105: Basic Probability and Statistics, University of Missouri St. Louis, 1 section
MATH 1320: Applied Statistics I, University of Missouri St. Louis, 1 section

FALL 2015 (7 classes taught)
MATH 116: Intermediate Algebra, Lewis and Clark Community College, 1 section
ECON 112: Principles of Microeconomics, Southern Illinois University Edwardsville, 1 section
MATH 125: Precalculus Mathematics with Trigonometry, Southern Illinois University Edwardsville, 2 sections
STAT 380: Statistics for Applications, Southern Illinois University Edwardsville, 1 section
MATH 112: College Algebra, Southwestern Illinois College, 2 sections

SPRING 2016 (9 classes taught)
MATH 1020: Contemporary Mathematics, University of Missouri St. Louis, 2 sections
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
MATH 131: College Algebra, Lewis and Clark Community College, 1 section
MATH 235: Statistics, Lewis and Clark Community College, 1 section
MATH 191/BUS 205: Introduction to Statistics/Economic & Business Statistics, Southwestern Illinois College, 2 sections
MS 250: Mathematical Methods for Business Analysis, Southern Illinois University Edwardsville, 1 section
QR 101: Quantitative Reasoning, Southern Illinois University
Edwardsville, 1 section

SUMMER 2016 (4 classes taught)
MATH 107: General Education Statistics, Southwestern Illinois College, 1 section
MATH 191/BUS 205: Introduction to Statistics/Economic & Business Statistics, Southwestern Illinois College, 1 section
MS 250: Mathematical Methods for Business Analysis, Southern Illinois University Edwardsville, 1 section
MATH 131: College Algebra, Lewis and Clark Community College, 1 section

FALL 2016 (8 classes taught)
MATH 094: Basic Algebra, Southwestern Illinois College, 2 sections
MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville, 1 section
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 2 sections
STAT 380: Statistics for Applications, Southern Illinois University Edwardsville, 1 section
MATH 235: Statistics, Lewis and Clark Community College, 1 section
MATH 131: College Algebra, Lewis and Clark Community College, 1 section

SPRING 2017 (7 classes taught)
MATH 094: Basic Algebra, Southwestern Illinois College, 1 section

MATH 114: Trigonometry, Southwestern Illinois College, 1 section
MS 250: Mathematical Methods for Business Analysis, 1 section
MATH 120: College Algebra, Southern Illinois University Edwardsville, 2 sections
STAT 380: Statistics for Applications, Southern Illinois University Edwardsville, 1 section
MATH 165: Calculus for Business and Social Science, Lewis and Clark Community College, 1 section

SUMMER 2017 (3 classes taught)
MATH 137: Elementary Mathematical Modeling, Lewis and Clark Community College, 1 section
MATH 191/BUS 205: Introduction to Statistics/Economic & Business Statistics, Southwestern Illinois College, 1 section
MS 250: Mathematical Methods for Business Analysis, Southern Illinois University Edwardsville, 1 section

FALL 2017 (8 classes taught)
MATH 094: Basic Algebra, Southwestern Illinois College, 1 section
MATH 114: Trigonometry, Southwestern Illinois College, 1 section
MATH 191/BUS 205: Introduction to Statistics/Economic and Business Statistics, Southwestern Illinois College, 1 section
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
STSK 132: Study Skills, Lewis and Clark Community College, 1 section
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 3 sections

SPRING 2018 (8 classes taught)
MATH 045: Statistics Support, Lewis and Clark Community College, 1 section
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
MATH 116: Intermediate Algebra, Lewis and Clark Community College, 1 section
MATH 114: Trigonometry, Southwestern Illinois College, 1 section
MATH 120: Enhanced College Algebra, Southern Illinois University Edwardsville, 2 sections
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 2 sections

SUMMER 2018 (3 classes taught)
MATH 045: Statistics Support, Lewis and Clark Community College, 1 section
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
MATH 203: Analytic Geometry & Calculus I, Southwestern Illinois College, 1 section

FALL 2018 (8 classes taught)
MATH 114: Trigonometry, Southwestern Illinois College, 1 section

MATH 191/BUS 205: Introduction to Statistics/Business & Economic Statistics, Southwestern Illinois College, 1 section
MATH 120E: Enhanced College Algebra, Southern Illinois University Edwardsville, 3 sections
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
MATH 045: Statistics Support, Lewis and Clark Community College, 1 section
MATH 1300/STAT 1300: Elementary Statistics w/Computers, Saint Louis University, 1 section

SPRING 2019 (7 classes taught)
MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville, 1 section
QR 101: Quantitative Reasoning, Southern Illinois University Edwardsville,
2 online sections
STAT 1100: Introduction to Statistics, Saint Louis University, 2 sections
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Facilitator: ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section

SUMMER 2019 (3 classes taught)
MATH 031: College Algebra Support, Lewis and Clark Community College, 1 section
MATH 131: College Algebra, Lewis and Clark Community College, 1 section
MS 250: Mathematical Methods for Business Analysis, Southern Illinois University Edwardsville, 1 section

FALL 2019 (7 classes taught)
MATH 120E: Enhanced College Algebra, Southern Illinois University Edwardsville, 1 section
STAT 380: Statistics for Applications, Southern Illinois University Edwardsville, 1 section
MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville, 1 section
MATH 045: Statistics Support, Lewis and Clark Community College, 1 section
MATH 145: General Education Statistics, Lewis and Clark Community College, 1 section
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Facilitator: ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section

SPRING 2020 (8 classes taught)
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Facilitator: ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section
STAT 380: Statistical for Applications, Southern Illinois University Edwardsville, 1 section
STAT 244: Statistics, Southern Illinois University Edwardsville, 1 section

MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville, 1 section
MATH/STAT 1300: Elementary Statistics w/ Computers, 2 sections, Saint Louis University
BST 3000: Introduction to Statistical Computing, 1 section, Saint Louis University

SUMMER 2020 (1 class)
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section

FALL 2020 (9 classes taught)
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Facilitator: ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section
MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville, 1 section
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 3 sections
STAT 380: Statistical for Applications, Southern Illinois University Edwardsville, 1 section
MATH/STAT 1300: Elementary Statistics w/ Computers, 1 section, Saint Louis University
STAT 1100: Introduction to Statistics, Saint Louis University, 1 section

SPRING 2021 (8 classes taught)
STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 1 section
STAT 1100: Introduction to Statistics, Saint Louis University, 2 sections
QR 101: Quantitative Reasoning, Southern Illinois University
Edwardsville, 1 section
BST 3000: Introduction to Statistical Computing, 1 section, Saint Louis University
BST 5100: Introduction to General Linear Modeling, 1 section, Saint Louis University
MS 251: Statistical Analysis for Business Decisions, 1 section, Southern Illinois University Edwardsville
Facilitator: ECON 528: Managerial Economics, 1 section, Southern Illinois University

SUMMER 2021 (4 classes taught)
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
MATH 165: Calculus for Business and Social Science, Lewis and Clark Community College, 1 section
Math GED Review Sessions, Lewis and Clark Community College, 10 review sessions (Summer A and Summer B)

FALL 2021 (5 classes taught)
PUBH 5040: Generating Evidence from Public Health Data, Saint Louis University, 1 section
STAT 380: Statistics for Applications, Southern Illinois University Edwardsville, 2 sections
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Teaching Assistant:

BST 3100: Applied Biostatistics I, Saint Louis University, 1 section

SPRING 2022 (5 classes taught)
PUBH 5040: Generating Evidence from Public Health Data, Saint Louis University, 1 section
BST 5030: Statistical Programming and Study Planning: SAS, Saint Louis University, 1 section
STAT 244: Statistics, Southern Illinois University, 2 sections
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section

SUMMER 2022 (3 classes taught)
MATH 165: Calculus for Business and Social Science, Lewis and Clark Community College, 1 section
Facilitator: MBA 521: Quantitative Analysis, Southern Illinois University Edwardsville, 1 section
Facilitator: ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section

GRADUATE COURSES COMPLETED (As of 09/11/2024)

BST 5200: Survival Data Analysis
BST 5220: Multilevel and Longitudinal Data Analysis
BST 5400: Applied Data Management
BST 5420: Sampling Theory and Survey Design in Public Health
BST 5930: Data Visualization
BST 6200: Spatial Statistics and Disease Mapping
ECON 417: Business Forecasting
ECON 450: International Finance
ECON 501: Advanced Microeconomic Theory
ECON 502: Advanced Macroeconomic Theory
ECON 543: Monetary and Fiscal Policy
ECON 581: Applied Quantitative Economics w SAS
FIN 440: Financial Institutions
FIN 515: Empirical Research Methods in Economics and Finance
FIN 517: Time Series Analysis
FIN 528: Security Analysis & Modeling
GIS 5010: Introduction to Geographic Information Systems
HMP 5200: Health Economics
MATH 4160: Complex Analysis I
MATH 423: Combinatorics/Graph Theory
MATH 4260: Introduction to Stochastic Processes
MATH 4450: Linear Algebra
MATH 495G: Independent Study: Numerical Analysis
MATH 5500: Directed Readings (Bayesian Data Analysis)
MATH 5500: Directed Readings (Bayesian Statistics)
MATH 5500: Directed Readings (Statistical Learning with R)
MATH 5500: Directed Readings (Topics in Probability)
MATH 5500: Directed Readings (Topics in Statistical Dependence)

MATH 5500: Directed Readings (Topics in Statistical Learning)
MATH 563: Optimal Control Theory
OR 440: Oper Res Deterministic Models
OR 585: Simulation Theory
OR 586: Simulation Theory
ORES 5320: Scientific Writing & Communication
PAPA 550: Public Policy: Context, Analysis
PBHE 455: Introduction to Epidemiology
PHS 6010: Design and Analysis in Public Health
PHS 6040: Applied Research I: Primary Data Collection
PHS 6050: Science, Theory, and Public Health
PHS 6060: Applied Research II
PHS 6900: Professional Development
PHS 6990: Dissertation
PUBH 5030: Methodological Approaches to Population Health
STAT 478: Time Series Analysis
STAT 480A: Introduction to Mathematical Statistics
STAT 480B: Introduction to Mathematical Statistics
STAT 481: Design and Analysis of Experiments
STAT 482: Regression Analysis
STAT 575: Statistical Computing
STAT 579: Discrete Multivariate Analysis
STAT 581: Advanced Experimental Design
STAT 582: Linear Models
STAT 595: Special Project