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## Kelly A. Ayres

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[linkedin.com/in/kellyayres](https://www.linkedin.com/in/kellyayres)

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### EDUCATION

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- Doctor of Philosophy (PhD) in Public Health Studies*** Fall 2018-present  
Concentration in Biostatistics GPA: 3.79/4.00  
Saint Louis University (SLU) St. Louis, MO  
Dissertation:  
Estimating the Reproduction Number for  
COVID-19: A Hidden Markov Model  
Doctoral Adviser: Dr. Steve Rigdon  
Dissertation Committee:  
Dr. Travis Loux  
Dr. Fadel Megahed  
Dr. Steve Rigdon (Chair)
- 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  
Master's Adviser: Dr. Ali Kutan
- Bachelor of Arts (BA) in Economics*** Degree Awarded: December 2008  
University of Illinois at Urbana-Champaign GPA: 3.46/4.00  
Urbana, IL

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## WORK EXPERIENCE

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### *Instructor in Public Health*

Department of Epidemiology and Biostatistics  
Saint Louis University

July 2022-present  
St. Louis, MO

Teach undergraduate and graduate public health courses both in person and online











## ACCREDITATION

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

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## PROFESSIONAL MEMBERSHIPS

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Member, American Mathematical Society, January 2011-present

Member, American Statistical Association, June 2013-present

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## PROFESSIONAL DEVELOPMENT

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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 10/3 12 Tf 1 352.87 264.29 Tm0 g0 G(,)TJETQq0.



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

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## **VOLUNTEER ACTIVITIES**

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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

Eyeglass Liaison, Collinsville Lions Club Noon, Collinsville, IL, March 2019-present

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

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## **SPECIAL SKILLS:**

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**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





MS 250: Mathematical Methods for Business Analysis, Southern Illinois University  
Edwardsville, 1 section

**FALL 2017** (8 classes taught)

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

ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section  
(Facilitator)

**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

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

ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section  
(Facilitator)

**SPRING 2020** (8 classes taught)

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

ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section  
(Facilitator)

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)

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

**FALL 2020** (9 classes taught)

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

ECON 528: Managerial Economics, Southern Illinois University Edwardsville, 1 section  
(Facilitator)

MS 251: Statistical Analysis for Business Decisions, Southern Illinois University Edwardsville,  
1 section

STAT 107: Concepts of Statistics, Southern Illinois University Edwardsville, 3 sections

**GRADUATE COURSES COMPLETED (As of 08/02/2022)**

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 Mapp77.f

