Evidence of Teaching Effectiveness

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Overview

Since starting my Ph.D. at West Virginia University, I have steadily expanded and sharpened my teaching practice. I have served as instructor of record for Principles of Macroeconomics and Urban Economics (both asynchronous) and am currently teaching Elementary Business & Economic Statistics in a synchronous format. I taught cohorts of 26–60 students from diverse majors, with preparation ranging from introductory to advanced. I design syllabi, deliver lectures, build and grade assessments, and support students through office hours and mentoring.

I use backward design to create student-centered courses and ensure assessments match the learning objectives. I incorporate active learning techiniques such as think-pair-share, structured discussions, short reflections, and real-world study cases. I integrate R and Excel to build data literacy and workplace skills and, when appropriate, incorporate additional technologies, such as Pear Deck, Kahoot, and simulation tools (e.g., PhET Plinko), to deepen engagement and application. These pedagogical tools allow to provide real time feedback to students and allow me to craft examples and assessments that mirror the kinds of problems students will face as professionals. My goal is an inclusive, experiential classroom that prepares students for life and centers student success.

I also have experience mentoring undergraduate students. While working as a graduate research assistant at the Regional Research Institute, I supervised a student who helped build a practitioner-facing portal that produces automated reports using R Markdown and Shiny to inform community decisions about economic impacts of touristic flows from mountain-bike events. Through my mentoring, she was able to integrate the knowledge gained from this project and apply it toward her capstone course. Reflecting on the experience, she shared: *"Daniel was an excellent research mentor. He was always willing to help and responded to questions in a very timely manner. His dedication to research was evident in his ability to articulate the skills and procedures I needed to succeed in our research project".*

To keep improving, I earned a Certificate in University Teaching and regularly join pedagogy workshops. A more in-depth summary of my most recent courses taught is presented below.

Most Recent Courses Taught

West Virginia University

ECON 225: Elementary Business and Economics Statistics (Fall 2025)
Class size: 60 students
Level: Freshmen/Sophomores
Type of instruction: Synchronous
This course is required for Economics and Finance major students.
Course Description: This is an introductory course designed to develop a basic understanding of statistical concepts. Students will learn about the various tools that are commonly used for data analysis and their scope and limitations. They will acquire skills needed to calculate and interpret statistical measures, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Additionally, students will apply these concepts to data using Excel.

Teaching Techniques: In this course, I incorporated case studies and Excel-based simulations using real-world problems. I also created interactive activities, such as a Probability Bingo game, where students solved problems to mark answers on their individual cards until a winner emerged. To increase engagement, I introduced online simulations of probability, distributions, and statistical experiments, including tools such as Seeing Theory and PhET Plinko Probability. In addition, I frequently used Pear Deck to solve exercises collaboratively during class. The course also included a final project, where students applied regression analysis in Excel to solve a real-world case.

Teacing Evaluations: Forthcoming.

Student Feedback: Forthcoming.

ECON 462: Urban Economics (Summer 2025)
Class size: 26 students
Level: Junior/Senior
Type of instruction: Asynchronous
This course is an elective for Economic majors.
Course Description: The goal of urban economics is to help explain why cities exist and why people and firms concentrate in urban areas despite higher land costs, crime rates, and pollution. Urban economics analyzes city development, urban spatial structures, land-use patterns, socioeconomic problems, and possible solutions.

Teaching Techniques: For this course, I prepared a sequence of case studies in which students applied the knowledge gained in each module to solve practical problems. Each

case study included a technical component, where students answered questions based on selected findings from scientific papers, and a problem set, which typically required solving a mathematical problem and interpreting it in the context of policy effects. For the final project, students were required to develop a policy brief addressing a real urban problem, supported by scientific and technical data. They then created a slide deck and presented their policy brief analysis in a short, professional self-recorded video.

Teaching Evaluation: Student evaluations were highly positive. Over 70% of respondents rated the presentation of concepts, instructional methods, and course organization as beneficial, while 100% reported clear feedback on their performance and timely responses to questions. Instructor presence in the online format, clarity of instructions, and interactivity were also rated very favorably, with 85–100% of students finding them beneficial. Optional measures, such as maintaining an up-to-date syllabus and gradebook, providing constructive feedback, and connecting course content to real-world relevance, received similarly strong evaluations.

Student Feedback:

"While the topics in this course were challenging at times Professor Centuriao only wanted the best for his students and was always willing to help us improve our work or understand it deeper. I was very pleased with Professor Centuriao's timeliness and attention to detail with assignments and ensuring that we were given the proper tools necessary to complete assignments to the best of our abilities."

ECON 202: Principles of Macroeconomics (Summer 2024)

Class size: 26 students

Level: Freshmen/Sophomores

Type of instruction: Asynchronous

This course is a requirement for Economics major students.

Course Description: This course introduces the fundamentals of macroeconomic theory and policy. Topics include national income determination, employment, inflation, and economic growth, with a focus on the roles of aggregate demand and aggregate supply. Students will explore key macroeconomic indicators, as well as the tools and impacts of monetary and fiscal policy.

Teaching Techniques: In general the understanding of macroeconomic concepts and the formulas of macroeconomic indicators is a limitation. Students struggle with some abstract concepts like economic growth. One of the main assessments that I applied in this course is the creation and analysis of graphs with time series analysis using the FRED st. Louis website that has a online tool of macroeconomic data. In this assessment students are in-

vited to create specific data series graphs of macroeconomic indicators like inflation, GDP and national income and analyze them, not just applying the macroeconomic concepts but also exercising critical thinking about macroeconomic conjecture and data analysis and interpretation.

Teaching Evaluation: Students strongly agreed that the course content was well related to graded assignments, thought-provoking, and useful for meeting course objectives, with mean ratings of 4.83 out of 5 across these measures. Overall learning was rated highly (mean of 4.50), and the instructor's teaching effectiveness received perfect ratings, with students unanimously agreeing that the course fostered a positive learning environment, was well organized, and provided helpful feedback rating 5 out of 5 points. Written comments emphasized that the course was very well taught, well maintained, and that resources and assignments were effective in preparing students for exams.

Student Feedback:

"Professor Centuriao was very helpful himself. Anytime I would email a question he would respond in a timely manner with very helpful feedback. He was very well organized on eCampus, and very helpful with his weekly announcements."

"The resources were organized very well. There was an appropriate amount of learning materials to feel prepared for exams."

"The assignments helped a lot and the exam prep materials."

Previous Teaching Experiences

Before pursuing my Ph.D., I have served as the primary instructor for undergraduate courses across economics, business, and geography departments in universities in Brazil. I have experience in two prominent public universities: the State University of Mato Grosso do Sul (UEMS) and the Federal University of Mato Grosso do Sul (UFMS). Combined, these institutions serve over 40,000 students and are nationally recognized for their academic rigor. UFMS, in particular, consistently ranks among the top 100 universities in Latin America according to international higher education assessments. At both universities, I was responsible for full course design, content delivery, grading, office hours and student advising. I have taught courses such as Economic Geography, Spatial Economics, Quantitative Methods, Brazilian Economy, and Principles of Economics. These courses reached students from diverse academic backgrounds, including Business, Computer Engineering, Chemistry, and Geography, and were taught in both synchronously and asynchronously, especially during the COVID-19 pandemic.

It is important to note that, unlike in many U.S. institutions, student course evaluations in Brazilian public universities are standardized and managed at the department level, rather than by individual instructors. As such, formal evaluation results are not available for the courses I taught in Brazil. However, these experiences were foundational to my development as an educator and helped build the foundation for my student-centered approach to teaching.

State University of Mato Grosso do Sul - Brazil

Economic Geography (Spring 2020)
Class size: 12 students
Level: Junior/Senior
Type of instruction: Synchronous
This course is a requirement for Geography major students.
Course Description: This course examines the spatial organization of economic activity through foundational theories such as location theory, central place theory, and global production networks. Students explore how globalization, regional development, and economic inequality shape the geography of labor, industry, trade, and innovation. Designed for those interested in business, planning, public policy, or global development, the course builds critical skills for analyzing real-world economic challenges in both local and international contexts.

History of Economic Thought (Spring 2020)
Class size: 32 students
Level: Junior/Senior
Type of instruction: Synchronous
This course is a elective for Geography major students.
Course Description: This course explores foundational questions in economics, such as the origins of value, the role of markets, and the nature of money, through the lens of historical debates and ideas. Organized thematically rather than chronologically, it revisits classic contributions from key thinkers to better understand how past insights continue to shape modern economic thought. Students will sharpen their critical thinking, writing, and analytical skills while engaging with questions that challenge the very foundations of economic theory.

Introduction to Quantitative Methods (Fall 2020)
Class size: 28 students
Level: Freshmen/Sophomores

Type of instruction: Synchronous
This course is a requirement for Geography major students.
Course Description: This course equips students with foundational skills in statistics and data analysis, preparing them to read, interpret, and apply quantitative research. Topics include descriptive statistics, probability, sampling, hypothesis testing, and simple regression, with hands-on practice using Excel, R/Stata or Phyton software. Designed for students with little or no prior experience in statistics, the course emphasizes real-world applications across social sciences research.

Spatial Economics (Fall 2020)
Class size: 16 students
Level: Junior/Senior
Type of instruction: Synchronous
This course is an elective for Economics and Geography major students.
Course Description: Why do cities grow, industries cluster, or housing prices vary so much across regions? This course introduces students to the economic forces that shape where people live, where businesses operate, and how regions develop. Using real-world examples and interactive models, we explore topics like trade, migration, transportation, and local policy. Students will learn how geography influences economic outcomes, and why space matters in understanding today's biggest economic challenges. In this course GeoDa was used as a spatial analysis software.

Entrepreneurship and Innovation (Fall 2020)
Class size: 12 students
Level: Freshmen/Sophomores
Type of instruction: Synchronous
This course is an elective for Geography major students.
Course Description: This course explores how entrepreneurs and firms turn new ideas into successful innovations. Focusing on real-world cases and practical strategies, students learn how to manage the innovation process, from generating ideas to bringing them to market. Topics include opportunity recognition, business models, organizational design, and adapting to technological change. Ideal for students interested in launching ventures or leading innovation within existing firms, the course blends strategic thinking with hands-on learning.

Project Management (Fall 2020)
Class size: 14 students

Level: Junior/Senior
Type of instruction: Synchronous
This course is an elective for Geography and Tourism Management major students.
Course Description: This course introduces students to the essential principles and tools of project management, a critical skill in today's innovation-driven and fast-paced organizations. Students learn how to initiate, plan, execute, and manage projects across different industries, with attention to scope, time, cost, and risk. Through real-world case studies and practical exercises, students develop project plans, build effective teams, and explore pathways toward professional certification such as the Project Management Professional (PMP) certification.

Federal University of Mato Grosso do Sul - Brazil

Most of these courses were taught at the business, accounting and economics school. However, the Principles of Economics course is also offered in other schools such as Engineering, I taught this same course for Software Engineering and Chemistry.

Principles of Economics (Spring/Fall 2019)
Class size: 80 students
Level: Freshmen/Sophomores
Type of instruction: Synchronous
This course is an elective for a diverse range of majors from Management, Chemistry to Engineer students.
Course Description: This course provides a comprehensive introduction to both microeconomics and macroeconomics, exploring how individuals and firms make decisions, how markets function, and how government policies impact the broader economy. Topics include supply and demand, market efficiency and failure, economic growth, inflation, and fiscal and monetary policy. Students will learn to apply economic models to real-world issues, develop critical thinking about economic outcomes.

Introduction to Business Management (Spring/Fall 2019)
Class size: 36 students
Level: Freshmen/Sophomores
Type of instruction: Synchronous
This course is required for a diverse range of majors from Business, Management to Engineer students.
Course Description: This course offers a broad overview of the business environment and

the core functions that drive firm performance, including marketing, operations, finance, accounting, human resources, and management. Students explore how businesses respond to global, legal, and economic forces while developing a foundational understanding of decision-making and strategy.

Brazilian Economic History (Fall 2019)
Class size: 23 students
Level: Junior/Senior
Type of instruction: Synchronous
This course is an elective for Economics major students.
Course Description: This course examines Brazil's economic and business development from the 19th century to the present, exploring shifts from export-led growth to state-driven industrialization and market liberalization. Through case studies in sectors like banking, transportation, agribusiness, students analyze the country's persistent challenges with inequality and underdevelopment. The course integrates development theory and historical analysis, while offering students the opportunity to pursue an independent research project on a related topic.

Principles of Macroeconomics (Spring 2019)
Class size: 45 students
Level: Juniors/Seniors
Type of instruction: Synchronous
This course is a requirement for Business major students.
Course Description: This course introduces students to the key concepts, tools, and debates in macroeconomic analysis. Topics include GDP growth, inflation, unemployment, and business cycles, with a strong emphasis on the role of government in managing the economy. Students explore how macroeconomic toy models such as IS-LM and apply these frameworks to analyze the effectiveness of fiscal and monetary policy in addressing real-world economic challenges.