

Teaching Statement: Pedagogical Principles, Experience, and Expertise¹

I. Sebastian Buhai²

Pedagogical Philosophy & Praxis

I am a dedicated advocate of research-based teaching, viewing scientific inquiry and university-level instruction as inseparable pillars of the academic vocation. As Wilhelm von Humboldt famously emphasized in his seminal 1810 address³, teaching and research are not discrete activities but mutually reinforcing dimensions of intellectual development for both students and educators.

At the same time, I acknowledge that university teaching must evolve dynamically alongside its audience. Without sacrificing scholarly rigor or depth, it must adapt responsively to the diverse cognitive styles and learning preferences of contemporary students. In the wise words of Herbert Simon⁴, effective pedagogy engages students' analytical faculties while fostering an inclusive and flexible learning environment.

Although my career so far has centered on research-intensive roles where formal classroom teaching was rarely mandated, I have consistently sought and embraced every opportunity to teach, mentor, and contribute to academic instruction — activities I regard as fundamental to the scholarly vocation. In recent years, my pedagogical focus has progressively shifted toward advanced student supervision and curriculum development. Beyond the confines of traditional classroom settings, I remain resolutely engaged in mentoring and academic advising across a diverse array of institutions. These commitments continually refine and deepen my teaching philosophy, which is firmly grounded in fostering intellectual autonomy, methodological rigor, and a collaborative ethos of inquiry.

Pedagogical Credentials & Formal Training for University-Level Teaching

- Completed during my doctoral years the *Basic Course for Teacher Training at the Onderwijskundig Expertise Centrum Rotterdam* (Erasmus University/Tinbergen Institute), involving theoretical modules and practical training — including peer-

¹ Version of **May 2025**; newest version: www.sebastianbuhai.com/Buhai_EcTeaching_Statement.pdf. See also my dedicated academic teaching webpage at www.sebastianbuhai.com/teaching.

² SOFI at Stockholm University, NIPE at University of Minho, and CEPREMAP in Paris; full information and contact details at www.sebastianbuhai.com.

³ “Science cannot be truly lectured on as science without again conceiving of it as self-actuating each time, and it would be incomprehensible if people did not in fact in the process often come upon discoveries. Moreover, university teaching is not such an arduous business that it should be regarded as interruption of the leisure for study rather than an aid to the same.” — Wilhelm von Humboldt, “On the Internal and External Organization of the Higher Scientific Institutions in Berlin” (1810)

⁴ “Teaching is not entertainment, but it is unlikely to be successful unless it is entertaining (the more respectable word would be *interesting*).” — Herbert A. Simon, “Models of My Life” (1991)

reviewed video-recorded lectures; certificate-level course typically required prior to starting university-level teaching in the Netherlands

- Hold the *French national Qualification of “Maître de Conférences”* (Qualification MCF) in Economics, awarded by the *Conseil National des Universités* (CNU); typically a prerequisite for (permanent) teaching roles within the French academe

Main Teaching (& Student Supervision) Interests

- *(Micro-)econometrics* (Theory, Methodology, Applications; also including modules suitable for standalone courses, e.g., Structural Econometric Modeling, Causal Inference, Program Evaluation, Statistics for Econometrics, Duration Analysis, Research Methods—designed for economists or social scientists more broadly, etc.)
- *Labor Economics* (encompassing both micro and macro perspectives, and including components suitable for standalone courses, such as Personnel Economics, Internal & External Labor Markets, Search & Matching in Labor Markets, Econ. of Education)
- *(Empirical) Industrial Organization* (including components suitable for shorter, standalone courses, such as, for instance, Production Functions, Consumer Demand, Market Power and Competition, Empirical Auctions, and related topics)
- *Economics of Strategy* (could also be offered with a strategic management emphasis)
- *(Applied) Microeconomics* (covering classical topics as well as specialized, standalone modules such as, e.g., Real Options applications—in IO, Labor, Environmental Economics, applications of Optimal Transport theory, etc.)
- *Causality and Prediction in Economics* (with, among others, incorporating machine learning methods aimed at enhancing predictive accuracy in economic research)
- *Research Ethics and Integrity* (in Economics and the broader scientific community)

Teaching and Supervision Experience – Overview

(For full course descriptions and chronological details, please refer to the Appendix.)

My teaching to date encompasses undergraduate, graduate, and continuing education courses in (micro-)econometrics — including structural econometric modelling and causal inference methods; labor economics; empirical industrial organization; economic strategy; applied microeconomics broadly construed; and research methods for economists and social scientists more generally — complemented by extensive experience in student supervision at various levels.

Undergraduate Courses

- *Descriptive Economics*, Aarhus University, Denmark (2008–2009): Bachelor-level course, focusing on empirical applications in labor and education economics. The course included lectures, mentoring of students writing seminar papers, as well as student-led presentation and debate sessions.

- *Introduction to Structural Econometric Modeling*, Örebro University, Sweden (2017): Bachelor-level guest lectures, introducing structural versus atheoretical econometric approaches, with a focus on industrial organization demand systems.

Graduate & Continuing Education Courses

- *Industrial Economics*, Aarhus University, Denmark (2008–2009): Large master-level course (~250 students) among others covering competition models, market structure, collusion, estimation of demand and production functions.
- *Economics of Strategy*, Aarhus University, Denmark (2008–2010): Master-level course (~150 students) focused on firm organization, agency theory, and firm boundaries, including topics like outsourcing and crowdsourcing, etc.
- *Topics in Empirical Industrial Organization*, Babes-Bolyai University, Romania (2017): Intensive graduate/ postdoctoral minicourse on advanced econometric tools for analysing market outcomes, including demand estimation, production functions, and dynamic oligopoly analysis.
- *Publishing Meaningful Scientific Research in Economics*, STAR-UBB at Babes-Bolyai University, Romania (2017): Graduate/ post-PhD minicourse offering practical guidance on research production, academic communication, and dissemination, especially tailored for PhD students and postdocs in Romania.

Mentorship, Supervision & Research Advising

I have provided both formal and informal supervision and advising across bachelor's, master's, and (post-)doctoral levels, consistently fostering intellectual independence, methodological rigor, and sustained scholarly development throughout the research process. Highlights of my mentorship and supervisory activities include supervising twelve bachelor theses at Aarhus University; directing the empirical research of two master-level research assistants at the Center for Corporate Performance (Aarhus/Copenhagen); informally advising a master's dissertation at KTH Royal Institute of Technology (Stockholm); offering targeted informal (co-)supervision on dissertation chapters for one doctoral candidate at Aarhus University and three doctoral candidates at Northwestern University; co-mentoring a postdoctoral researcher at Babes-Bolyai University; and maintaining ongoing collaborative and advisory relationships with several PhD students and early-career researchers across France, Portugal, Sweden, and Romania.

Curricular Design & Knowledge Dissemination

- Designed and developed comprehensive teaching materials and curricula for intensive graduate and continuing-education courses, widely adopted/ adapted across multiple

institutions — including, e.g., co-designing syllabi for well established master’s programs at Aarhus University; see the Appendix for a detailed course listings⁵.

- Some of my (co-)authored academic publications have been incorporated into graduate-level curricula at leading universities worldwide, including Stanford, Harvard, UCSB, or the University of Western Ontario.
- Delivered invited pedagogical seminars and public lectures, engaging diverse academic and professional audiences to advance the dissemination of economic knowledge⁶.
- Actively engaged in science communication and popularization through numerous interviews/ public essays; see my Media Coverage (www.sebastianbuhai.com/media-coverage) and Essays (www.sebastianbuhai.com/essays) pages for more information.

Teaching Evaluation & Reflective Practice

I actively seek and thoughtfully incorporate feedback from students and colleagues to continuously enhance the effectiveness of my teaching. Formal evaluations of my courses have consistently reflected high levels of student satisfaction and instructional quality, while informal assessments and peer reviews further attest to the positive impact of my pedagogical approach. Many of my former students have progressed to prominent roles in academia, industry, and policy, and I am gratified to maintain ongoing professional relationships with them.

Teaching remains a deliberate and enduring commitment, one that transcends conventional classroom boundaries. Although my recent academic roles have emphasized the research component, I have consistently engaged in pedagogy through mentoring, curriculum development, invited lectures, and ongoing dialogue with students and academic peers. This sustained reflective practice continually informs my teaching philosophy, ensuring its relevance and rigor.

Future Directions

Some of my key pedagogical aims for the near future include developing advanced graduate courses in structural econometric modelling and comprehensive causal inference, emphasizing rigorous, theory-driven empirical methods, reproducible data analysis, and concrete applications—primarily within Labor Economics, Industrial Organization, and Environmental Economics. Additionally, I intend to integrate recent advances in econometric techniques, including predictive frameworks leveraging machine learning, alongside robust structural modeling approaches. Concurrently, I plan to design specialized applied

⁵ I have also more recently developed a state-of-the-art graduate course on Financial Time-Series Econometrics, initially planned for a graduate economics program in Romania. A course synopsis is available at www.sebastianbuhai.com/courses/Buhai_TimeSeriesFinEctrics_proposal.pdf.

⁶ One prominent such example is my invited 1.5-hour public lecture in March 2022 titled “Economics – between science, art, and public policy” (delivered in Romanian), as part of the *Studium Generale* series at Babes-Bolyai University’s elite UBB-STAR Institute. The lecture was broadcast live and remains permanently available for streaming [on Babes-Bolyai University’s YouTube channel](https://www.youtube.com/watch?v=...) (see also my Essays page at www.sebastianbuhai.com/essays for the supporting slides and additional context).

microeconomics modules that explore dynamic programming broadly construed, real options theory, and optimal transport theory in depth. Equally important, I believe all graduate students and early-career researchers should receive thorough training in scientific integrity, ethics, and responsible research practices. I remain fully committed to supervising students in these areas, fostering analytical rigor and methodological clarity.

Appendix: Detailed Reverse Chronological Overview of Teaching Engagements

- *“Publishing Meaningful Scientific Research in Economics (and related Social Sciences): A Hands-On Guidance for PhD Students and Researchers in Romania”*, November 2017, mini-course organized the Babes-Bolyai University’s Institute for Advanced Studies in Science & Technology (STAR-UBB) and its Center for Continuing Education & Distance Learning (CFCIDFR), Cluj, Romania; see [the course synopsis](#)
 - Graduate, approx. 40 participants (particularly PhD students and postdocs, from Economics and other Social Sciences, from various Romanian univs.); organized as 2 intensive lectures x 3 hrs
 - Aims: hands-on guidance on how to produce and disseminate meaningful Econ research, especially relevant in the context of the disastrous situation of Economic Sciences in Romania; pragmatic tips on academic reading, writing, speaking, publishing, scientist interaction with the wider society.
- *“Introduction to Structural Econometric Modeling”*, September 2017, invited guest lectures within the existing course “Economics Research and Communication”, at Örebro University, Örebro, Sweden
 - Undergraduate, approx. 35 students (including on Erasmus exchange prog.)
 - Aims and goals: overview of the debate between structural vs. atheoretical approaches in applied (micro)econometrics; construction/ evaluation of structural econometric models; very easy intro to structural modeling of IO demand systems. [See the list of recommended further reading.](#)
- *“Topics in Empirical Industrial Organization”*, July 2017: intensive crash/refresh *mini-course*, at the Faculty of Economics and Business Administration, Babes-Bolyai University, Cluj-Napoca, Romania; associated to the ERMAS 2017 conference (keynotes Eric Maskin, Ariel Pakes, Aureo de Paula, and Victor Rios-Rull); click for [the mini-course’s description](#).
 - Graduate/ continuing-education, with approx. 40 participants (including Economics PhD students and faculty from various Romanian universities, as well as staff of the Competition Council in Romania, and various other institutions, etc.); organized as 2 intensive sessions of 3 hours
 - *Aims and goals*: overview of some of the state-of-the-art econometrics tools for analyzing industrial market outcomes; inter alia, I covered the main methodological issues arising in the estimation of demand systems, the estimation of production functions, and I gave a bird’s-eye view on *the* empirical analysis of dynamic oligopoly games.

- “*Industrial Economics*” (co-taught), Fall 2008 + Fall 2009, Aarhus School of Business, Aarhus U. (course renamed “Advanced Industrial Economics” at Aarhus U. later on)
 - Large master level course, with approx. 250 master students; consisted of 27 formal lectures spread over 7 weeks, with 4 lectures (once 3)/ week (usually organized as 2 consecutive lectures, in each of 2 separate week days), and final 3-hour written exam as course assessment; course credits: 5 ECTS.
 - Aims and goals: Students expected to become familiar with the various models of competition, the determinants of market structure, the conditions that make collusion attractive/ feasible, and the role of competition policy. Inter alia, the course seeks to provide basic tools for understanding differences in the intensity of competition across industries, and its consequences on prices, quantities, quality choice, efficiency, welfare, market structure, and the possibilities of collusion.
 - Topics I taught in my part of the course: entry deterrence / accommodation; product differentiation; market concentration/ power; price collusion; demand system estimation; production function estimation; etc.
- “*Economics of Strategy*” (co-taught), Fall 2008 + Spring 2010, Aarhus School of Business, Aarhus University
 - Large master level course, with approx. 150 master students; consisted of 27 formal lectures spread over 7 weeks, with 4 (once 3) lectures/ week (usually organized as 2 consecutive lectures in each of 2 separate week days), plus a final 3h written exam as course assessment; course credits: 5 ECTS.
 - *Aims and goals*: Students expected to understand how a firm can build an organization to achieve strategic goals. Inter alia, this implies studying the boundaries of the firm, the development of newer trends such as outsourcing, offshoring, crowdsourcing, how firms can create incentives to motivate employees to work in their best interest, and how firm structure generally relates to firm strategy.
 - Topics I taught in my part of the course: agency, ownership and control; horizontal and vertical boundaries of the firm; incomplete contracts& the property right approach; relational contracts; corporate hierarchy/ culture
- “*Descriptive Economics*”, Fall ‘08 to Spring ‘09, Aarhus School of Business, Aarhus U.
 - Bachelor level course: instruction/ supervision of smaller groups of students in writing, presenting, and acting as discussants of their colleagues’, term-length individual ‘seminar’ papers. Organized as class lectures, plus (optional) meetings with each student during Fall 2008; subsequent presentation/debate sessions (1 student presenter, 2 student “opponents”) of normal lecture time, in Spring 2009 (March- May); course credits: 5 ECTS.
 - Aims and goals: Students expected to acquire introductory notions of basic Econometrics applied to specific topics within (in my case) “Labor Markets” and respectively “Education” (inter alia concretized through their writing/ presenting/ discussing term-length descriptive empirical papers).