

# Teaching Statement

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During my PhD, I have had extensive teaching experience and I found it enjoyable and rewarding. Over the past five years, I had the opportunity to work both as an instructor and as a teaching assistant for a variety of graduate courses, both at the PhD and master levels. I have always worked hard to provide high quality teaching in a vivid learning environment, and helped students to develop their own understanding of fundamental ideas and theories in the discipline of economics.

My primary teaching interests are in Macroeconomics, International Trade and Labor Economics. I am also very interested in teaching Computational Economics. In the future, I would also be open in instructing courses in Development Economics, Economic Growth, Applied Macroeconomics and Public Economics, at either undergraduate or graduate level.

The remainder of this document describes my teaching philosophy, my teaching experiences, supported with a summary of the teaching evaluations and a sample of student comments.

## Teaching philosophy

I believe that the ability to think critically is the most valuable element in economics education, hence my lectures are always shaped around real-world examples. I interact with students, stimulate them to ask questions, enhance their participation during my class, and encourage them to use office hours to clarify their doubts. I recommend students to work hard with course material, reading and understanding lecture notes and course books, and solving weekly problem sets, so to be able to master new knowledge and new techniques.

My teaching philosophy is based on three main pillars: (1) help students understanding the main theoretical concepts in the discipline of economics, (2) show them how theoretical constructs can be used to understand the functioning of the economic systems in the real world, and (3) show them how computational methods can help them to handle the complexity of theoretical frameworks.

My experience as an instructor of the PhD brush-up course in *Real Analysis and Optimization* helped me focusing on the first pillar. Over the years, I devoted considerable amount of time to showing the theory behind economic models. In particular, I helped students embracing knowledge of basic real analysis, which is necessary to understand the general equilibrium foundation of modern macroeconomics, and I also focused on several optimization techniques, whose applications are critical to perform comparative static analysis.

My experience as a teaching assistant for the PhD course in *Macroeconomics I* thought by Professor Chris Busch at the PhD program and by Professors Francesc Obiols and Raul

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Santeulalia-Llopis at the master program, helped me focusing on the second pillar. In particular, during my classes I illustrated how simple macroeconomic models can be used to tackle real-world questions (like, among the others, what is the role of investment in R&D for economic growth, or how income taxation could distort labor supply) and how the theoretical predictions could be actually tested using cross-country longitudinal data. At the same time, being a teaching assistant for master courses pushed me to reach students with a diverse background and learn to provide more technical materials in a more user friendly manner.

Finally, my experience as an instructor for the PhD course in *Computational Tutorial* at the PhD program, helped me focusing on the third pillar; that is, showing how to practically solve a complex dynamic macroeconomic model with the help of a computer.

I will apply my philosophy to the courses I teach, encouraging students to think about economic questions through the lens of theoretical models, and exploit the richness of the data available today to economists to discipline their theoretical framework and substantiate their theoretical predictions.

### Summary of courses taught

- *Mathematics Brush Up* (Universitat Autònoma de Barcelona, PhD), Instructor, Fall 2015/2016, Fall 2016/2017, Fall 2017/2018. A mandatory graduate 20 hour-course intended for beginning students in the PhD program in Economics at UAB, focusing on introductory real analysis, static optimization (Lagrange and Kuhn-Tucker problems), integration (Riemann and Lebesgue integrals) and matrix algebra. For this course, I prepared and delivered ten 2-hour lectures; I designed the entire syllabus, I provided my own teaching material (lecture notes, plus two homework assignments), and held office hours.
- *Macroeconomics 1* (Universitat Autònoma de Barcelona, PhD), Teaching Assistant for Prof. C.Busch, Fall 2017/2018. A mandatory graduate course intended for first-year PhD students in Economics at UAB, focusing on concepts of equilibrium (Arrow-Debreu, Sequential, Recursive) and dynamic programming. For this course, I held ten 1-hour lectures; I solved and graded four weekly assignments, and held office hours.
- *Macroeconomics 1* (Barcelona Graduate School of Economics, Master), Teaching Assistant for Prof. F.Obiols and Prof. R.Santeulalia-Llopis, Fall 2016/2017. A first-semester course in Macroeconomics intended for students of the BGSE master program in “Macroeconomics and Financial Markets”, focusing on introductory dynamic programming, and data and measurement in macroeconomics. For this course, I held ten 1-hour lectures; I solved and graded ten weekly assignments, and held office hours.
- *Fiscal Policy* (Barcelona Graduate School of Economics, Master), Teaching Assistant for Prof. A.Marcet, Spring 2015/2016. A second-semester course intended for students of the BGSE master program in “Macroeconomics and Financial Markets”, focusing on problems of optimal fiscal policy with complete and incomplete markets. I was responsible of grading four weekly assignments.
- *Optimization* (Universitat Autònoma de Barcelona, PhD), Teaching Assistant for Prof. R.Burguet, Fall 2015/2016. A mandatory first-year PhD course in Economics at UAB, focusing on advanced real analysis, static and dynamic optimization. For this course,

I held ten 1-hour lectures; I solved and graded ten weekly assignments, and held office hours.

- *Computation Tutorial* (Universitat Autònoma de Barcelona, PhD), Instructor, Spring 2014/2015. An optional graduate course intended for second-year PhD students in Economics at UAB, focusing on numerical methods (numerical differentiation, integration and optimization) and various solution techniques for recursive problems in macroeconomics (value function iteration, policy iteration, projection methods, parametrized expectation algorithm). For this course, I prepared and delivered ten 1-hour lectures; I designed the entire syllabus, provided my own teaching material (Matlab codes), and held office hours.

## Teaching evaluations

I am constantly improving my teaching skills, by learning in particular from students feedback. My teaching evaluations have been positive and my performance has been improving over time. Looking at measures like “Quality of the instructor” and “Instructor’s preparation for class”, the effort I spent to improve myself brought me from scoring 92.2 percent (4.64/5) in the first course I was assigned (Computation Brush-up, Instructor) to 98.8 percent (4.94/5) in the last course I taught (Macroeconomics I, TA). To put these numbers in context, during the academic year 2017-2018, the average score for “Quality of the instructor” across all the teaching assistants was 82 percent (4.05/5) while the average value for “Instructor’s preparation for class” was 86.6 percent (4.33/5). I have been committed to help my students to understand the topics at hands with best enthusiasm I could provide and with the highest availability during and outside office hours. Below, I report selected evaluations from my students. The full teaching evaluations are available at my homepage, [www.alessandroruggieri.com/teaching](http://www.alessandroruggieri.com/teaching)

- *“Alessandro has great knowledge and takes time to explain so that we profit from the time spent in the classroom as much as we can. He is certainly a good teacher even at this early stage of his academic career.”*
- *“I would like to really congratulate Alessandro by his enthusiasm and the didactic in teaching this course. He was amazing. I and I mean other students also thanks him because his lectures were very useful to the Macro III course. In one word: fantastic!”*
- *“Alessandro is really good at MatLab and he is also a good teacher - he knows how to convey knowledge.”*
- *“It was wonderful having Alessandro as a TA. Especially, because he was always available to answer any questions.”*
- *“Very good TA. Clear and concise in explanations and always willing to help.”*