

Teaching Statement

Alexander Matros

I believe that there are two keys to being a good teacher. The first key is active in-class learning. I try to maintain an interactive classroom. In my teaching I present concepts and theories to students in a way that they can integrate this information into their own life experience. In each of my classes, I emphasize critical thinking and real-world applications of the concepts and issues we study. I try to engage students to be actively involved in my class and get interested in it.

The second key is thorough preparation. I not only prepare the material to be taught, but also think about the best way of presenting it. I try to predict students' responses and make my presentation interesting and exciting for students. My predictions become a great deal better if I have a chance to teach a class several times, for example Introduction to Game Theory.

Undergraduate teaching

During my six years at the University of Pittsburgh I have taught two different undergraduate classes: Intermediate Microeconomics (2 sessions in Fall 2003) and Introduction to Game Theory (Spring 2005 (3 sessions), Spring 2006 (2 sessions), Fall 2006 (2 sessions), Spring 2008 (3 sessions), Fall 2009 (2 sessions)).

My teaching is designed to provide incentives for students to learn material on the spot during lectures. Usually, I start a game theory class with a question which makes students suggest what to do in this or that particular economic situation. Then, I have an experimental demonstration of that economic situation and ask students to participate. This approach not only illustrates concepts and stimulates thinking but also provides incentives for the active in-class participation because students can receive extra credit. Finally, we discuss the theory which can explain the observed strategic decisions.

Undergraduate Students

- Kristen King, after taking my undergraduate Intermediate Microeconomics class, did an Independent Study with me and wrote a paper for the David Schenker student essay competition. She was my research assistant in Fall 2004. Kristen won the Tepper Scholarship in 2005.
- Daniel Armanios, after taking my undergraduate Introduction to Game Theory class, took my graduate class in Spring 2006. Then we wrote a research paper “Tullock's Contest with Reimbursements” together. The paper was published in *Public Choice*, 2009. Daniel received the 2007 Rhodes Scholarship.
- John Ball, after taking my undergraduate Introduction to Game Theory class, took two of my graduate classes in Spring and Fall 2006.
- Tim Adamo and I have written a research paper “A Blotto Game with Incomplete Information,” which is forthcoming in *Economics Letters*.

Graduate teaching

During my six years at the University of Pittsburgh I have taught six different graduate classes: Topics in Microeconomics (Spring 2004, Fall 2005); Introduction to Game Theory 2 (Spring 2007); Contest, Tournaments, and Their Applications (Spring 2007); Contests and Lotteries (Fall 2007); Introduction to Mathematical Methods (Summer 2008, Summer 2009); Mathematical Methods of Economic Analysis (Fall 2008, Fall 2009).

My teaching is designed to bring students to the cutting edge of the current research. I believe that research and teaching go together on the graduate level. For example, in **Contest, Tournaments, and Their Applications (Spring 2007)** students were required to write a summary of each paper which was to be presented in the class as well as present two papers. I arranged for their presentations to be taped. Each student received a copy of the tape and feedback about her/his presentation. We have learned a lot and all students were very positive about the class in their evaluation forms. Moreover, as a result of the in-class discussions several papers were submitted to scientific journals and one of them,

“Contests with a Stochastic Number of Players,” (W. Lim and A. Matros) is forthcoming in *Games and Economic Behavior*.

I try to encourage students to discover the excitement that can be found in research. I welcome the opportunity to supervise independent projects and have encouraged students to submit their ideas for in-class discussions. In particular,

- 3 students wrote papers in **Topics in Microeconomics (Spring 2004)**.
- All 7 students wrote their papers in **Topics in Microeconomics (Fall 2005)**. Moreover, 4 papers were accepted to the 17-th International Conference on Game Theory at Stony Brook, July 2006.
- Two students used their papers as second-year papers.

Graduate Students

Independent Studies

Yong Sui (Summer 2004); Helen Lafferty (Summer 2004); Virginie Masson (Fall 2004, Spring 2005, Summer 2005, Fall 2005); Ernest Kong-Wah Lai (Spring 2006)

Advising

- I was the primary advisor for Virginie Masson, who defended her Ph.D. on December 8, 2006. She won the Reuben E. Slesinger Paper Award and Richard S. Thorn Excellence in teaching Award in 2005 and Andrew Mellon Pre-doctoral Fellowship at the University of Pittsburgh for Fall 2005 and Spring 2006.
- **Thesis committees.** Zhiyong Tu (2005); Xin He (December 2005); Virginie Masson (chair, December 2006); Yong Sui (May 2007)
- **2nd year papers.** Tim Hister; Wooyoung Lim; Zhiyong Tu; Yong Sui; Martin Burda; Helen Lafferty; Virginie Masson (chair); Yong-Ju Lee; Espinola-Arendondo Ana; Felix Munoz