CERTIFICATE IN DATA ANALYTICS IN ECONOMICS

The data analytics in economics MA certificate will provide any graduate student the foundational social science data analysis skills employers desire. Methods covered will include causal inference and forecasting, as well as complementary programming skills to collect, prepare, and analyze data sets. To learn more please speak with Dr. Oleg Smirnov, graduate director, department of economics.

The department of economics currently teaches two sequenced graduate data analysis courses every year, one in the fall semester, ECON 5810: Econometrics Models and Methods I (4 credits) and one in the spring semester, ECON 5820: Econometrics Models and Methods II (4 credits). These courses are foundational for understanding causal inference for applied data analysis. Once the students have these two courses to build their data analysis toolbox, they apply the toolbox to a graduate economics course, or any graduate course, that requires an empirical component. If the course is 3 credits, then the student must register for a one hour independent study with the course instructor to demonstrate their applied data analysis skills in the course. Otherwise, the course is a 4 credit course with the data analysis component as imbedded in the course. Lastly, for a graduate student to complete the Data Analytics in Economics graduate certificate they must complete a Master's paper or Master's thesis (in economics or other) further demonstrating their data analysis application skills.

"Data Analytics in Economics" graduate certificate. The proposed certificate requires the student to complete three courses and an applied data analysis Master's paper:

Code	Title	Hours
ECON 5810	Econometrics Models And Methods I	4
ECON 5820	Econometrics Models And Methods II	4
ECON 5000 level elective course that includes a required data analysis component (4 credits) or suitable substitution of one of the above courses with permission of the economics graduate director.		4
Completed Master's paper (or Master's thesis) that includes a required data analysis component (minimum of a zero credit course with assigned research advisor).		

1. Formalize a research question that can be studied with empirical data,

2. collect and prepare data for analysis,

3. choose and apply the appropriate empirical method for the data and research question of interest,

4. explain and communicate the empirical results in writing and verbally.