Applied Econometrics and Data Analysis Undergraduate Certificate

Those with economics degrees are in high demand in a large number of occupations, whether in business or government; students with advanced econometrics skills who understand how to apply these techniques in real-world settings are in even higher demand. This Certificate in Applied Econometrics and Data Analysis is designed to provide the education needed for employment in analysis positions in business or government. The Certificate is a valuable credential for economics majors with a quantitative focus, (applied) math majors, and selected students from other social sciences.

Certificate Requirements

The Certificate consists of 6 courses met through 3 required courses and 3 electives which must be selected from the list below. At least 4 of these courses must be completed in residency at UMSL.
(Note that all of these courses have prerequisites that the student must complete before taking the selected course.)

Required Courses		
ECON 4100	Introduction to Econometrics	4
ECON 4110	Applied Econometrics	4
ECON 4120	Time Series Econometrics for Economics and Finance	4
or ECON 4130	Business and Economic Forecasting	
Electives		
The remaining 3 electives must come from the following list:		9-10
ECON 4040	Booms and Busts in the Economy: Data and Theory	
ECON 4120	Time Series Econometrics for Economics and Finance (if course not used above)	
ECON 4130	Business and Economic Forecasting (if course not used above)	
ECON 4160	Geospatial Analysis in the Social Sciences	
MATH 4200	Mathematical Statistics I	
MATH 4210	Mathematical Statistics II	
POL SCI 4040	Survey Research Practicum in Political Science	
PSYCH 4365	Psychological Testing and Assessment	
SOC 4040	Survey Research Practicum for Sociology	
SOC 3221	Qualitative Methods in Social Research	
SOC 4312	Sociology of Wealth and Poverty	

Learning Outcomes

Upon completion of the program, certificate earners will be able to:

- Use statistical software to estimate, analyze, and interpret economic relationships applying regression analysis techniques to data.
- Develop appropriate econometric models using real-world data to make management or policy recommendations in a variety of professional settings.
- Apply key concepts of estimation and forecasting in a time series context.