



**AUBURN UNIVERSITY
AT MONTGOMERY**

COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES

CERTIFICATE PROGRAMS

Department of Political Science and Public Administration

PLAN OF STUDY – 12 Hours/4 Required Courses

Certificate in Data Analysis and Policy Evaluation

The Certificate in Data Analysis and Policy Evaluation offers a curriculum to help students develop their expertise in data analysis and the skills to communicate their findings clearly and persuasively through written, visual, and verbal formats. Four courses are required for the certificate. This certificate program is open to individuals who have completed a bachelor’s degree, including those currently enrolled in the AUM Master of Public Administration program.

Data Analysis and Policy Evaluation	Course Description
Required (2 Courses)	
Choose One PUAD 6080 Statistics and Data Analysis	Introduces students to fundamental concepts in statistical description and inference.
INFO 5880 Data Analysis for Competitive Advantage	Introduces data analysis and its applications. Case approach is used to emphasize hands-on learning and a real-world view of big data analytics.
PUAD 6260 Program Evaluation	An introduction to evaluation methodology and tools used in designing and delivering effective public service programs.
Choose any 2 of the following courses:	
POLS 6010 Research Design	This course develops skills and knowledge for conducting and evaluating policy-relevant research (in-person).
INFO 6510 Data Visualization	Using large-data analytics tools to develop visual representation of high-dimensionality data to communicate results, predictive, and prescriptive data to management and decision makers. Theory of various visualization techniques, identifying and correcting misleading visuals, documenting and communicating results. MS PowerBI is used as a platform for exercises.
ECON 6510 Macroeconomic Analysis	In this class we will develop models that help us explain the behavior and structure of the economy in the short- and long-run. These models will provide a set of tools to understand the determinants of gross domestic product, inflation and unemployment and the effects of monetary and fiscal policies on these variables. Upon completion of this course, you should be able to analyze the economic effects of government policies and identify and interpret key Macroeconomic indicators.
ECON 6520 Foundations of Empirical Research	An introduction to the fundamental aspects of empirical economic research. You will learn key concepts related to sampling, descriptive statistics, probability theory and application, confidence intervals, hypothesis testing, and regression analysis. You will have the opportunity to use EXCEL and STATA to apply these concepts to actual data.