Interested in studying the evolving reaches of human behavior through data? Looking for a leg-up in a career that requires critical analysis of information? This certificate will train you to leverage qualitative evidence in the world around you, as well as teach quantitative skill sets to create and confirm data theories.

**Description**

This certificate program prepares students to acquire, manage and analyze a broad range of data on human thought and human behavior. Data can be qualitative (e.g., text, images, sound) or quantitative (e.g., direct observation, surveys, GIS). Data acquisition skills may include the downloading and managing of information from online sources or the primary collection of data in surveys or by direct observation. A key feature of this program is a focus on data analysis so that students will be able to analyze any data they collect. All students in this program will demonstrate skills in statistical analysis plus skills in a selection of methods related to their interests.

**At a Glance**

- **College/School**: College of Liberal Arts and Sciences
- **Location**: Tempe campus

2018 - 2019 Major Map
Major Map (Archives)

**Program Requirements**

Students must complete 18 credit hours. A minimum of a "C" grade (2.00 on a 4.00 scale) is required.

**Required Course -- 3 credit hours**

STP 452: Multivariate Statistics or an equivalent course approved by academic advisor (3)
Electives (Choose four) -- 12 credit hours

AML 441: Mathematical Concepts and Tools in Sustainability (3)
ASB 430: Social Simulation (CS) (4)
FAS 361: Research Methods (L or SB) (3)
FAS 460: Leadership, Research, and Collaboration in Community Change (3)
FAS 461: Community Action Research Experience Research Internship (3)
GCU 373: Introduction to Geographic Information Science (SG) (4)
GCU 442: Geographical Analysis of Transportation (SB) (3)
GCU 496: Geographic Research Methods (L) (3)
GIS 311: Geographic Information Science III (CS) (4)
GIS 322: Programming Principles in GIS II (3)
GIS 341: Introduction to Cartography and Georepresentation (CS) (3)
GIS 351: Air Photo Interpretation (3)
GIS 431: Spatial Databases (3)
GIS 441: Geographics: Interactive and Animated Cartography and Geovisualization (CS) (3)
GIS 461: Optimization Fundamentals for Spatial Analysis (3)
GIS 462: Location Analysis and Modeling (3)
GIS 470: Advanced Statistics for Geography and Planning (CS) (3)
GIS 471: Spatial Statistics for Geography and Planning (3)
GIS 472: Spatial Regression Analysis (3)
POS 301 / SGS 305: Empirical Political Inquiry (SB) (3)
POS 401 / SGS 401: Political Statistics (CS) (3)
PUP 424: Planning Methods (4)
PUP 481: Optimization Fundamentals for Spatial Analysis (3)
PUP 482: Location Analysis and Modeling (3)
SOC 389: Ethnographic Field Lab (1-6)
SOC 391: Research Methods (L or SB) (3)
SOC 433: Applied Demography (SB) (3)
STP 310: Design and Analysis of Experiments (3)
STP 315: Statistical Computing (3)
STP 420: Introductory Applied Statistics (CS) (3)
STP 429: Experimental Statistics (CS) (3)
STP 450: Nonparametric Statistics (3)
STP 460: Categorical Data Analysis (3)

Required Capstone Course -- 3 credit hours

ASB 499: Individualized Instruction or an equivalent capstone course approved by academic advisor (3)

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this certificate.
Enrollment Requirements

A student pursuing an undergraduate certificate must be enrolled as a degree-seeking student at ASU. Undergraduate certificates are not awarded prior to the award of an undergraduate degree. A student already holding an undergraduate degree may pursue an undergraduate certificate as a nondegree-seeking graduate student.

Contact Information

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