2022 - 2023 Certificate Map
Social Science Research Methods

School/College: The College of Liberal Arts and Sciences
Location: Tempe

Program Requirements

The certificate requires 18 credit hours, 12 of which must be upper division. A minimum of a "C" grade (2.00 on a 4.00 scale) in each course is required.

Required Course -- 3 credit hours

GIS 469 / SOC 469: Multivariate Statistics for Social Sciences or STP 452: Multivariate Statistics (3)

Electives -- 12 credit hours

Choose at least four courses for a minimum of 12 credit hours. At least six credit hours must be upper division.

ACO 100: All About Data: Design, Query, and Visualization (CS) (3)
ACT 435: Statistics for Risk Modeling (3)
ACT 450: Actuarial Models and Modeling I (3)
ALA 235: Introduction to Computer Modeling (CS) (3)
AML 253: Introduction to Mathematical Tools and Modeling for the Life and Social Sciences (3)
AML 441: Mathematical Concepts and Tools in Sustainability (3)
ASM 494: Models in Social Evolution (3)
BME 301: Numerical Methods in Biomedical Engineering (2)
BMI 211: Modeling Biomedical Decisions (3)
BMI 311: Modeling Biomedical Knowledge (3)
BMI 312: Modeling Biomedical Data (3)
BMI 461: Advanced Topics in Biomedical Informatics I (3)
BMI 462: Advanced Topics In Biomedical Informatics II (3)
COM 308: Advanced Research Methods in Communication (L) (3)
COM 407: Advanced Critical Methods in Communication (3)
CRJ 303: Statistical Analysis (CS) (3)
ECN 410: Applied Regression Analysis and Forecasting (3)
ECN 416: Game Theory and Economic Behavior (3)
EDP 454: Statistical Data Analysis in Education (CS) (3)
FAS 361 / SOC 391: Applied Research Methods (L or SB) (3)
FAS 498: Advanced Statistics for Social Sciences (3)
GCU 351: Population Geography (SB & G) (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: Cartography and Georepresentation (CS) (3)
GIS 431: Spatial Databases (3)
GIS 441: Geographics: Interactive and Animated Cartography and Geovisualization (CS) (3)
GIS 461 / PUP 481: Fundamentals of Spatial Optimization (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)
GPH 494: Advanced Digital Analysis (3)
HSE 290: Experimental Methods for Human Systems Research (L) (3)
HSE 390: Qualitative Research Methods (L) (3)
IFT 200: Information Modeling, Storage and Retrieval (3)
IFT 410: Big Data Tools and Practices (3)
MKT 352: Marketing Research (L) (3)
POS 301 / SGS 305: Empirical Political Inquiry (SB) (3)
POS 401 / SGS 401: Political Statistics (CS) (3)
PUP 424: Planning Methods (4)
PSY 330: Statistical Methods (CS) (3)
SBS 302: Qualitative Methods (3)
SBS 404: Social Statistics II: Multivariate Analysis (CS) (3)
SOC 389 / SBS 389 / ASB 389: Ethnographic Field Lab (1-6)
SOS 211: Calculus and Probability for the Life and Social Sciences (MA) (3)
STP 280: Probability and Statistics for Researchers (CS) (3)
STP 310: Design and Analysis of Experiments (3)
STP 311: Regression and Time Series Analyses (3)
STP 315: Statistical Computing (3)
STP 420: Introductory Applied Statistics (CS) (3)
STP 421: Probability (3)
STP 425: Stochastic Processes (3)
STP 429: Applied Regression (CS) (3)
STP 450: Nonparametric Statistics (3)
STP 460: Categorical Data Analysis (3)
TWC 301: Fundamentals of Writing for Digital Media (L) (3)
TWC 411: Principles of Visual Communication (L) (3)

**Required Capstone Course -- 3 credit hours**
ASB 499: Individualized Instruction or an equivalent capstone course approved by academic advisor (3)

Prerequisite courses may be needed in order to complete the requirements of this certificate.