

SDSB - SOCIAL DATA SCIENCE, BSOS

SDSB123 Social Data Science: Pathways and Applications (1 Credit)

Data Science, machine learning, and AI have exploded in popularity, and the big data revolution has affected how science is done in all fields, from the physical sciences to the behavioral and social sciences. This course explores the goals, values, skills, and practices of how data science is conducted within a variety of fields within the social sciences. It will enable students to identify questions and challenges that data science can address and help them find the data science discipline that matches their own values and goals.

Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

Credit Only Granted for: BSOS188C or SDSB123.

Formerly: BSOS188C.

SDSB180 Introduction to Data Management (1 Credit)

Learn to read data, clean data sets, and perform other vital functions (mainly in Excel). Students will develop fundamental skills that will ease the transition into future coursework (or a career) in data science or analytics. Designed for students who have minimal background in Excel or computer software.

Restriction: Must be in a major within the College of Behavioral and Social Sciences or the College of Information.

Credit Only Granted for: SDSB180 or BSOS180.

Formerly: BSOS180.

Additional Information: Recommended for BSOS majors who need additional support for their disciplinary stats or research methods sequence.

SDSB233 Data Science for Social Science (3 Credits)

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

Prerequisite: Must have completed or be concurrently enrolled in STAT100.

Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

Credit Only Granted for: SDSB233 or BSOS233.

SDSB326 Python Programming for the Social Sciences (3 Credits)

Python has become an extremely powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. This course offers a thorough introduction to Python and those packages that are fundamental to data processing and analysis.

Prerequisite: Minimum grade of C- in BSOS233 or SDSB233.

Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

Credit Only Granted for: SDSB326 or BSOS326.

Formerly: BSOS326.

SDSB340 Introduction to Survey Methodology (3 Credits)

Introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

Prerequisite: STAT100.

Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

Credit Only Granted for: SURV400 or SDSB340.