SOCIAL DATA SCIENCE - GEOGRAPHICAL SCIENCES & GIS

A MINIMUM GRADE OF C- MUST BE Earned IN ALL BENCHMARKS, SDSC CORE COURSES, AND SDSC MAJOR ELECTIVES.

**MATH REQUIREMENT**

*Must be completed within the first 30 credits after declaring the major*

**STAT100**
*Elementary Statistics and Probability*
Pre-requisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility

**MATH120 (OR HIGHER)**
*Elementary Calculus I*
Pre-requisite: 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test

**BENCHMARK I**

*Choose only 1 between INST126 and GEOG276*

**INST126**
*Intro to Programming*
Pre-requisite: Math placement of STAT100 or higher
Equivalent courses approved by the iSchool may fulfill this requirement; please see an advisor

**GEOG276**
*Principles of Python Programming and Geocomputing*

**BENCHMARK II**

*Must be completed within the first 60 credits after declaring the major*

**GEOG202**
*Introduction to Human Geography*

**GEOG306**
*Introduction to Quantitative Methods for the Geographical Environmental Sciences*

**CORE COURSES**

*Choose only 1 between INST326, BSOS326, or GEOG376*

**BSOS233**
*Data Science for the Social Sciences*
Pre-requisite: Minimum grade of C- in MATH115 or higher

**INST327**
*Database Design and Modeling*
Pre-requisite: Minimum grade of C- in INST126 or GEOG276

**INST366**
*Privacy, Security, and Ethics for Big Data*
Pre-requisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100; and minimum grade of C- in one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100)

**INST326**
*Object-Oriented Programming for Information Science*
Pre-requisite: Minimum grade of C- in INST126 or GEOG276

**BSOS326**
*Python Programming for the Social Sciences*
Pre-requisite: Minimum grade of C- in MATH115 or higher

**GEOG376**
*Introduction to Computer Programming*
Pre-requisite: GEOG276 and GEOG373; Must have completed or be concurrently enrolled in MATH120, MATH130, or MATH140; or must have completed MATH220
COURSE SEQUENCE REQUIREMENTS

TRACK I COURSES

INST414
Advanced Data Science
Pre-requisite: Minimum grade of C- in MATH115 (or higher) and STAT100; and a minimum grade of C- from INST126 or GEOG276; and a minimum grade of C- from one of the following (INST201, INST301, or BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201)

INST447
Data Sources and Manipulation
Pre-requisite: Minimum grade of C- in STAT100 and INST327; and a minimum grade of C- from one of the following (INST201, INST301, BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201); and a minimum grade of C- from one of the following (BSOS331, GEOG273, or INST326)

INST462
Intro to Digital Visualization
Pre-requisite: Minimum grade of C- in STAT100; minimum grade of a C- from one of the following (INST201, INST301, or BSOS233); minimum grade of C- in INST126 or GEOG276; a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC100, or SOCY201)

SURV400
Fundamentals of Survey and Data Science
Pre-requisite: Minimum grade of C- in STAT100; or permission of BSOS-Joint Program in Survey Methodology department

SURV430
Fundamentals of Questionnaire
Requirement: Permission of BSOS-Joint Program in Survey Methodology department

INST492
Capstone
Pre-requisite: Minimum grades of C- or higher in all of the Core Courses

TRACK II COURSES

GEOG373
Geographic Information Systems

*Choose 9 credits in Track II*