SOC R125: STATISTICS FOR THE BEHAVIORAL AND SOCIAL SCIENCES

Originator
ptrujillo

College
Oxnard College

Discipline (CB01A)
SOC - Sociology

Course Number (CB01B)
R125

Course Title (CB02)
Statistics for the Behavioral and Social Sciences

Banner/Short Title
Statistics for Behav & Soc Sci

Credit Type
Credit

Start Term
Fall 2023

Catalog Course Description
Students learn and apply statistical methods to social science data. The topics include: descriptive and inferential statistics, levels and types of measurement, measures of central tendency and dispersion, normal t and chi-square distributions, probability and hypothesis testing, and correlation and regression. Applications of statistical software to social science data are required.

Taxonomy of Programs (TOP) Code (CB03)
2208.00 - Sociology

Course Credit Status (CB04)
D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)
A (Transferable to both UC and CSU)

Course Basic Skills Status (CB08)
N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)
E - Non-Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
Y - Not Applicable

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
1 - Program Applicable

General Education Status (CB25)
B - Satisfies Math/Quantitative Reasoning req (CSUGE-B B4, IGETC 2, or 4-yr)

Support Course Status (CB26)
N - Course is not a support course

Field trips
Will not be required

Grading method
(L) Letter Graded

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture
Minimum Contact/In-Class Lecture Hours
52.5
Maximum Contact/In-Class Lecture Hours
52.5

Activity

Laboratory

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
52.5
Total Maximum Contact/In-Class Hours
52.5

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class
Minimum Outside-of-Class Hours
105
Maximum Outside-of-Class Hours
105

Total Student Learning

Total Student Learning
Total Minimum Student Learning Hours
157.5
Total Maximum Student Learning Hours
157.5

Minimum Units (CB07)
3
Maximum Units (CB06)
3

Prerequisites
Course taught at the level of intermediate algebra or placement as determined by the college's multiple measures assessment process.

Entrance Skills
Entrance Skills
Algebraic fluency with expressions and equations. Understanding functions and graphs.

Requisite Justification
Requisite Type
Prerequisite

Requisite
Course taught at the level of intermediate algebra or placement as determined by the college's multiple measures assessment process.

Requisite Description
Course in a sequence

Level of Scrutiny/Justification
Content review

Student Learning Outcomes (CSLOs)	
	Upon satisfactory completion of the course, students will be able to:
1	Explain the differences between qualitative and quantitative statistical approaches to data analysis.
2	Describe the different levels and types of measurements used in statistics.
3	Create and evaluate hypotheses through hypothesis testing.

| 4 | Assess the impact of probability and nonprobability methods on sampling. |
| 5 | Interpret results from univariate and multivariate analyses. |

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	Demonstrate use of basic statistical techniques.
2	Conduct elementary numerical computations and interpret the results in written form.
3	Organize, classify, and represent quantitative data in the social and behavioral sciences in various forms: tables, graphs, rates, percentages, measures of central tendency and variation.
4	Make statistical inference using estimation, hypothesis testing, correlation and regression.
5	Demonstrate familiarity with applications to social and behavioral data sets in statistical software.

Course Content

Lecture/Course Content
1. Research Design and the Role of Statistics
    a. Asking research questions
    b. The role of theory
    c. Formulating hypotheses
    d. Collecting data
    e. Analyzing Data- descriptive and inferential statistics
2. Organizing Data and Measures of Central Tendency
    a. Frequency distributions
    b. Graphic presentations
3. Measures of Central Tendency
    a. Levels of measurement
    b. The mode, median and mean
    c. Measures of variability
    d. Normal distribution
4. Sampling and Sampling Distributions
    a. Estimation and confidence interval
    b. Statistics in practice
5. Testing Hypotheses
    a. Research and null hypotheses
    b. Estimating the standard error and t statistic Cross Tabulations, Chi-square test, Correlation, Regression, and Analysis of Variance
    c. Properties of a bivariate relationship
    d. Testing for nonspuriousness
    e. Assessing the accuracy of predictions
    f. Testing the significance of r^2 using ANOVA

Laboratory or Activity Content
None

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):
Written expression
Problem solving exercises

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):
Computational homework
Essay exams
Group projects
Individual projects
Mathematical proofs
Problem-solving exams

Quizzes
Reports/papers
Research papers
Essays
Problem-Solving Assignments

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Audio-visual presentations
Class activities
Class discussions
Collaborative group work
Computer-aided presentations
Distance Education
Guest speakers
Instructor-guided interpretation and analysis
Instructor-guided use of technology
Internet research
Lecture

Describe specific examples of the methods the instructor will use:

1. Class discussions on the application of statistical methods in the Social Sciences.
2. Use smartboards and/or computer writing pads to display step by step proofs of statistical computations.
3. Use of statistical computer software (such as SPSS) to collect and analyze secondary and/or primary data.
4. Use of computer slides to demonstrate statistical theories, concepts, and calculations.
5. Use of internet videos to demonstrate statistical theories/concepts.
6. In class group work where students identify levels of measurements for a collection of variables.

Representative Course Assignments

Writing Assignments

1. Exercises written on questions/problems from instructor or textbook.
2. Research paper written in essay format, providing introduction, review of related research on sociological topic, variables and hypothesis proposed, data produced and analysis using statistical techniques.
3. Research proposal and scholarly literature review and questionnaire design used in gathering data on a sociological question, applying appropriate statistical analysis.

Critical Thinking Assignments

1. Use of secondary data (i.e. census data) to explore patterns and relationships in our local cities and/or neighborhoods.
2. Developing research projects that incorporate the various concepts and methods found in statistical analyses.

Reading Assignments

1. One or two chapters in the textbook to be read each week along with laboratory assignments.
2. Outside research on a topic of sociological relevance, using scholarly sources such as journals or reports.

Problem-Solving and Other Assignments (if applicable)

1. Lab exercises based on problems from textbook applying SPSS or other statistical software
2. Administer questionnaires to individuals in community.

Outside Assignments

Representative Outside Assignments

1. Use of secondary data (i.e. census data) to explore patterns and relationships in our local cities and/or neighborhoods..
2. Developing research projects that incorporate the various concepts and methods found in statistical analyses.
3. Exercises written on questions/problems from instructor or textbook.

Articulation

C-ID Descriptor Number
SOCI 125

Status
Approved

Comparable Courses within the VCCCD
PSY V04 - Introductory Statistics for the Social and Behavioral Sciences

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

D2. Communication/Analytical Thinking
Approved

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

Course is CSU transferable
Yes

CSU Baccalaureate List effective term:
Fall 2011

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

B4 Mathematical/Quantitative Reasoning
Approved

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

Area F: Ethnic Studies

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

UC TCA

UC TCA
Approved

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 2A: Mathematical Concepts & Quantitative Reasoning
Approved

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals
Resource Type
Textbook

Description
Frankfort-Nachmias, C., & Lean-Guerrero, A. (2017). *Social Statistics for a Diverse Society* (8th). Thousand Oaks, CA Pine Forge.

Resource Type
Other Resource Type

Description
PowerPoint presentations from publisher..

Resource Type
Other Resource Type

Description
Websites on the Internet selected by the instructor, and Statistical Package for Social Sciences..

Resource Type
Other Resource Type

Description
Selected readings assigned by instructor in journals such as Pacific Sociological Association Journal..

Distance Education Addendum

Definitions

Distance Education Modalities
Hybrid (1%–50% online)
Hybrid (51%–99% online)
100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.
Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.
Yes

Regular Effective/Substantive Contact

Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Use of instructor initiated discussion boards to post discussion questions. This practice can also include having students reply to each other's comments/postings. In addition, email and/or Canvas messaging will also be used for course communication.
E-mail	Using email to address student questions and concerns. In addition, as a means to provide course updates.
Face to Face (by student request; cannot be required)	Live Lectures and office hours (on campus or via video conferencing). Recordings of all live class sessions will be made available within the LMS.
Other DE (e.g., recorded lectures)	Recorded lectures, lecture postings, and posting of course slides.
Synchronous Dialog (e.g., online chat)	Faculty can connect with students via online chat, live video lectures, and office hours (via video conferencing or in person). For live video lectures, students can also engage in real time communication with one another directly through the video, audio, and chat capabilities of video conferencing software.
Video Conferencing	Video Lectures (asynchronous or synchronous) and online office hours. Recordings of all live class sessions will be made available within the LMS.

Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Use of instructor initiated discussion boards to post discussion questions. This practice can also include having students reply to each other's comments/postings. In addition, email and/or Canvas messaging will also be used for general course communication.
E-mail	Using email to address student questions and concerns. In addition, as a means to provide course updates.
Face to Face (by student request; cannot be required)	Live Lectures and office hours (on campus or via video conferencing). Recordings of all live class sessions will be made available within the LMS.
Other DE (e.g., recorded lectures)	Recorded lectures, lecture postings, and posting of course slides.
Synchronous Dialog (e.g., online chat)	Connecting with students via online chat, live lectures, and office hours (via video conferencing or in person). For live video lectures, students can also engage in real time communication with one another directly through the video, audio, and chat capabilities of video conferencing software.
Video Conferencing	Video Lectures (asynchronous or synchronous) and online office hours. Recordings of all live class sessions will be made available within the LMS.

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Use of instructor initiated discussion boards to post discussion questions. This practice can also include having students reply to each other's comments/postings. In addition, email and/or Canvas messaging will also be used for course communication.
E-mail	Using email to address student questions and concerns. In addition, as a means to provide course updates.
Face to Face (by student request; cannot be required)	Live video lectures and office hours (via video conferencing). Recordings of all live class sessions will be made available within the LMS.
Other DE (e.g., recorded lectures)	Recorded lectures, lecture postings, and posting of course slides.
Synchronous Dialog (e.g., online chat)	Connecting with students via online chat, live video lectures, and office hours (via video conferencing or in person). For live video lectures, students can also engage in real time communication with one another directly through the video, audio, and chat capabilities of video conferencing software.
Video Conferencing	Video Lectures (asynchronous or synchronous) and online office hours. Recordings of all live class sessions will be made available within the LMS.

Examinations

Hybrid (1%–50% online) Modality
On campus
Online

Hybrid (51%–99% online) Modality
On campus
Online

Primary Minimum Qualification
SOCIOLOGY

Review and Approval Dates

Department Chair
05/10/2023

Dean
05/10/2023

Technical Review
05/10/2023

Curriculum Committee
05/10/2023

DTRW-I
MM/DD/YYYY

Curriculum Committee
MM/DD/YYYY

Board
MM/DD/YYYY

CCCCO
MM/DD/YYYY

Control Number
CCC000530053

DOE/accreditation approval date
MM/DD/YYYY