Cerro Coso College

Course Outline of Record Report

10/07/2021

PSYCC271 : Research Methods in the Social and Behavioral Sciences

General Information

Author:	• Sarah King • Cummings, Nakysha • Jones, Matthew
Course Code (CB01) :	PSYCC271
Course Title (CB02) :	Research Methods in the Social and Behavioral Sciences
Department:	Social Science
Proposal Start:	Fall 2021
TOP Code (CB03) :	(2003.00) Behavioral Science
SAM Code (CB09) :	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000325781
Curriculum Committee Approval Date:	10/02/2020
Board of Trustees Approval Date:	12/10/2020
External Review Approval Date:	12/10/2020
Course Description:	This course covers research methods in the social and behavioral sciences, as well as proper reporting of results in American Psychological Association (APA) style. These methods include research design (experimental, non-experimental, and quasi-experimental), the interpretation of behavioral data using descriptive and inferential statistics, and research ethics.This course is identical to SOSC C271. Students who have already taken SOSC C271 may not enroll in this class.
Submission Type:	Mandatory Revision Changing the course back to it's previous state by updating the discipline and changing the prerequisites to PSYC C101 and MATH C121
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Anthropology • Economics • Political Science • Psychology • Sociology
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade Methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Course Support Course Status (CB26)

No value

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type	Active
No value	No value	

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Status	Approval Date	Comparable Course
Area 2.1	Social & Behavioral Sciences Social	Approved	No value	No Comparable Course defined.

Intersegmental General Education Transfer Curriculum	Categories	Status	Approval Date	Comparable Course
Area 4.I	Social and Behavioral Sciences Psychology	Approved	No value	No Comparable Course defined.

CSU General Education Certification	Categories	Status	Approval Date	Comparable Course

Area D.7	Social Sciences Interdisciplinary Social or Behavioral Science	Approved	No value	No Comparable Course defined.

C-ID	Categories	Status	Approval Date	Comparable Course
Psychology	C-ID discipline	Approved	No value	PSY 200

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	3	6
Laboratory Hours	0	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Activity	0
Total	54
Course Out-of-Class Hours	
Lecture	108
Laboratory	0
Activity	0

Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Units and Hours: Profile Name

Summary

Minimum Credit Units (CB07)	0
Maximum Credit Units (CB06)	0
Total Course In-Class (Contact) Hours	0
Total Course Out-of-Class Hours	0
Total Student Learning Hours	0
Faculty Load	0

Detail

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	0	0
Laboratory Hours	0	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	0
Activity	0
Total	0

Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Activity	0
Total	0

Time Commitment Notes for Students

No Value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours: Profile Name - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

PSYCC101 - General Psychology

PSYC C271 is a second-level course in the psychology degree. Students should be introduced to the introductory level concepts in this discipline prior to taking this course. They will need the knowledge and skills learned in those courses in order to understand the advance concepts being taught in PSYC C271. There are also required prerequisites for C-ID approval in psychology.

OR

Prerequisite

PSYCC101H - General Psychology : Honors

PSYC C271 is a second-level course in the psychology degree. Students should be introduced to the introductory level concepts in this discipline prior to taking this course. They will need the knowledge and skills learned in those courses in order to understand the advance concepts being taught in PSYC C271. There are also required prerequisites for C-ID approval in psychology.

AND

Prerequisite

MATHC121 - Elementary Probability and Statistics

Math 121 provides the student with a useful and relevant foundation in statistical analysis to develop a research design and interpret results. This includes the ability to understand central tendency and dispersion, shape distribution, probability theory, alpha levels, t-scores, z-scores, Pearson r, measurement error, sample size, and effect size significance testing.

OR

Prerequisite

MATHC121H - Elementary Probability and Statistics - Honors

Math 121H provides the student with a useful and relevant foundation in statistical analysis to develop a research design and interpret results. This includes the ability to understand central tendency and dispersion, shape distribution, probability theory, alpha levels, t-scores, z-scores, Pearson r, measurement error, sample size, and effect size significance testing.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Presentations (by students)
Rationale	Presentations on student selected research journal articles.
Methods of Instruction	Outside reading
Rationale	Read "Participatory Action Research Guidelines" by the CUNY Institute
Methods of Instruction	Lecture
Rationale	45 min lecture on the differences between correlation and causation studies
Methods of Instruction	Group Work
Rationale	Group activity on correcting ethical concerns within a given unethical scenario.
Methods of Instruction	Discussion
Rationale	Class discussions focusing on research methodology

Assignments

1. Textbook reading assignment: Example: Students will read assigned chapter(s) and complete an out of class multiple-choice study-quiz covering the material within the chapter.
2. Research Project Students will complete a research project on a self-selected study, choose an appropriate research design, complete a literature search, analyze the data and write a research report in APA format.
3. Reading Handouts Example: Articles from the "Monitor" American Psychological Association (APA) quarterly publication.

Methods of Evaluation	Rationale
Tests	Tests and quizzes using multiple choice and short answer questions
Project	Designing, conducting, and reporting the results of a research project
Research Paper	Report the results of a research project
Homework	Reading assignments and participating in discussions
Distance Education Description: how outcomes are evaluated	Outcomes for the various methods of evaluations above are assessed in the following ways: 1. Hands on projects are assessed using a rubric . 2. Quizzes are assessed using tabulated scores. 3. Written assignments are assessed using a rubric.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Pelham, B. Blanton, H.	Conducting Research in Psychology: Measuring the Weight of Smoke, 5th edition	Sage Publishing	2018	
Schutt, R.K.	Investigating the Social World: The Process and Practice of Research, 9th edition	Sage Publications	2018	
Buttolph Johnson, J., Reynolds, H. T., Mycoff, J.D.	Political Science Research Methods	Sage Publishing	2019	
H. Russell Bernard	Research Methods in Anthropology: Qualitative and Quantitative Approaches, Sixth Edition	Rowman & Littlefield	2017	
W. Lawrence Neuman	Social Research Methods: Qualitative and Quantitative Approaches, 8th Edition	Pearson	2020	

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Identify research methods appropriate to the hypothesis. Expected SLO Performance: 70.0

Social Science Psychology AA Degree for Transfer	1. The student will be able to apply psychological principles to the development of interpersonal, social, and occupational skills. Assessment:Examination through the use of multiple choice and short answer.
	3. The student will be able to evaluate psychological data and apply the scientific method to psychological theory. Assessment:The student will complete a research project scored by a rubric.
Social Science Liberal Arts: Social & Behavioral Sciences AA Degree	Identify and apply the Scientific Method used by social scientists to study human behavior.
Social Science PLOs for CSU GE COA	Describe the method of inquiry used by the social and behavioral sciences.
Social Science Anthropology AA Degree for Transfer	Use the scientific method to analyze aspects of the human condition.
	Use the scientific method to analyze aspects of the human condition.
Social Science Sociology AA-T	Use the scientific method to analyze social and cultural patterns among human groups.
Social Science IGETC PLOs	Describe the method of inquiry used by the social and behavioral sciences.

Critically evaluate social science research reports. Expected SLO Performance: 70.0

Social Science Psychology AA Degree for Transfer	1. The student will be able to apply psychological principles to the development of interpersonal, social, and occupational skills. Assessment:Examination through the use of multiple choice and short answer.
	3. The student will be able to evaluate psychological data and apply the scientific method to psychological theory. Assessment:The student will complete a research project scored by a rubric.
Social Science Anthropology AA Degree for Transfer	Use the scientific method to analyze aspects of the human condition.
	Use the scientific method to analyze aspects of the human condition.
Social Science Sociology AA-T	Use the scientific method to analyze social and cultural patterns among human groups.

Identify and analyze at a principled level of moral reasoning ethical issues related to conducting and reporting research. Expected SLO Performance: 70.0

Social Science	Use the scientific method to analyze aspects of the human condition.

Anthropology AA Degree for Transfer	Use the scientific method to analyze aspects of the human condition.
ISLOs Core ISLOs	Students who are completing a program will be able to think critically and creatively and apply reasoning.
Social Science Psychology AA Degree for Transfer	3. The student will be able to evaluate psychological data and apply the scientific method to psychological theory. Assessment:The student will complete a research project scored by a rubric.
	1. The student will be able to apply psychological principles to the development of interpersonal, social, and occupational skills. Assessment:Examination through the use of multiple choice and short answer.
Social Science Sociology AA-T	Use the scientific method to analyze social and cultural patterns among human groups.

Outline

Course Outline

1. History of Human Knowledge
    - A) Metaphysical Systems
    - B) Philosophy
    - C) Physiology and the Physical Sciences
    - D) Experimental Psychology
2. Four Canons of Science
    - A) Determinism
    - B) Empiricism
    - C) Parsimony
    - D) Testability
3. Logic; Art and Ethics of Scientific Discovery
    - A) Laws, Theories, and Hypotheses
    - B) The Science of Observation
    - C) Three Approaches to Hypothesis Testing
4. Art of Scientific Discovery
    - A) Inductive Techniques for Developing Ideas
    - B) Deductive Techniques for Developing Ideas
5. Ethics of Scientific Discovery
    - A) Evolution of Ethical Guidelines
    - B) Modern Internal Review Boards and Risk-Benefit Analyses
    - C) Ethical Guidelines
6. Validity
    - A) Internal Validity
    - B) External Validity
    - C) Construct Validity
    - D) Conceptual Validity
7. Reliability
    - A) Reliability, Validity, and the "More is Better" Rule
8. Measurement Scales
    - A) Nominal Scales
    - B) Ordinal Scales
    - C) Interval Scales
    - D) Ratio Scales
9. Converting Notions to Numbers
    - A) The Judgment Phase
    - B) Perspective Taking
    - C) Wording Questions
10. Response Translation Phase
    - A) The Number of Scale Points
    - B) The Importance of Anchors
    - C) The EGWA Scale
    - D) Special Scales

11. Writing Questions and Creating Scales
    A) Designing Questionnaires
    B) Alternate Measures
12. Common Threats to Validity
    A) Individual Differences and "Third Variables"
    B) Selection Bias and Nonresponse Bias
    C) History and Maturation
    D) Regression Towards the Mean
    E) Testing Effects
    F) Experimental Mortality (Attrition)
    G) Participant Reaction Bias
13. Confounds and Artifacts
    A) Confounds
    B) Artifacts
    C) Confounds versus artifacts
14. Nonexperimental Research Design
    A) Case Studies
15. Single-Variable Research
    A) Population Surveys
    B) Epidemiological Research
    C) Research on Public Opinion
    D) Limitations and Drawbacks of Population Surveys
    E) Single-Variable Convenience Samples
16. Multiple-Variable Research
    A) Correlational Methods
    B) Person Confounds
    C) Environmental Confounds
    D) Operational Confounds
    E) Reverse Causality
17. Experimental Research Design
    A) Strengths of True Experiments
    B) Problem of Artificiality
    C) Solution: Two Forms of Realism
18. Trade Offs Between Internal and External Validity
19. Laboratory Experiments
    A) Optimistic Bias and Planning Fallacy
    B) Pilot Tests
    C) Replication
20. Quasi-Experimental Designs
    A) Person-by-Treatment Quasi-Experiments
    B) Natural Experiments
    C) Nature and Treatment Designs
21. Choosing the Right Research Design
    A) One-way Designs
    B) Factorial Designs
    C) Within-Subjects Designs
    D) Mixed Model Designs
22. Statistics
    A) Descriptive Statistics
        a. Central Tendency and Dispersion
        b. The Shape of Distributions
    B) Inferential Statistics
    C) Probability Theory
    D) Factors that Influence the Results of Significant Tests
        a. Alpha levels and Type I and II Errors
        b. Effect Size and Significance Testing
        c. Measurement Error and Significance Testing
        d. Sample Size and Significance Testing
        e. Restriction of Range and Significance Testing
    E) Hypothesis Testing
        a. Estimates of Effect Size
        b. Meta-Analysis
23. Maximizing Validity with Multi-Method (creative) Research
    A) Trade-offs in Research
    B) Three Horned Dilemma (Precision, Generalizability to Situations, Generalizability to People)
24. Reporting Research Results

A) Rules to Writing Research Papers
B) Writing in APA Style
C) Presenting Research Findings

Delivery Methods

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings ("Hybrid") -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

- Face to face
- Online (purely online no face-to-face contact)
- Online with some required face-to-face meetings ("Hybrid")
- iTV – Interactive video = Face to face course with significant required activities in a distance modality

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section? Describe the ways in which instructor-student contact and student-student contact will be facilitated in the distance ed environments.

All assignments and SLO assessments in distance education courses (online) are the same as those in the on-ground course, except that students in purely online sections will submit all of their assignments virtually. Instructor evaluation of student work in distance education courses is the same as in the on-ground course, except that evaluation of student work in an online course is presented virtually. Instead of onsite lectures, online courses will use videos and written lecture notes. Student interaction will take place in online discussion forums.

Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other

- Discussion Forums
- Message
- E-mail
- Face-to-face meeting(s)
- Newsgroup/Discussion Board

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

No additional software or equipment necessary for either on-ground or online courses. Just basic computer and internet access.

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

- Learning management system

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

Recommended section size of online sections will not be lower than in on-ground sections.

Emergency Distance Education Options The course will operate in remote delivery mode when all or part of the college service area is under an officially declared city, county, state, or federal state of emergency, including (check all that apply) - Online including all labs/activity hours - Hybrid with online lecture and onsite lab/activity hours - Correspondence education in high school and prison facilities - None. This course will be cancelled or paused if it cannot be held fully onsite.

- Online including all labs/activity hours
- Correspondence education in high school and prison facilities