



COURSE OUTLINE : PSYCH 200

D Credit – Degree Applicable

COURSE ID 010241

Cyclical Review: November 2017

COURSE DISCIPLINE : PSYCH

COURSE NUMBER : 200

COURSE TITLE (FULL) : Research Methods for Psychology

COURSE TITLE (SHORT) : Research Methods for Psych

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID : PSY 200 - Introduction to Research Methods in Psychology

CATALOG DESCRIPTION

PSYCH 200 is a lecture and laboratory course focusing on the nature of theory and the principles of descriptive and inferential research. Topics covered in the course include: an analysis of the scientific method, research design, ethical principles, internal and external validity, and scientific writing. The course is built around the application of these topics in a laboratory environment.

CATALOG NOTES

Note: This course may not be taken for credit by students who have successfully completed SOC S 200.

Total Lecture Units:3.00

Total Laboratory Units: 0.50

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Total Lecture Hours: 54.00

Total Laboratory Hours: 27.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 81.00

Total Out-of-Class Hours: 108.00

Prerequisite: PSYCH 100 and MATH 136.



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ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	PSYCH	101	General Psychology	demonstrate familiarity with the major concepts, theoretical perspectives, research methods, core empirical findings, and historic trends in psychology;	Yes
2	PSYCH	101	General Psychology	critically analyze major theoretical perspectives of psychology (e.g. behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and socio-cultural);	Yes
3	PSYCH	101	General Psychology	demonstrate knowledge and understanding of biological bases of behavioral and mental processes, sensation, perception, learning, memory, cognition, consciousness, individual differences, personality, social psychology;	Yes
4	PSYCH	101	General Psychology	demonstrate knowledge and understanding of developmental changes across the lifespan, psychological disorders, emotion, and motivation;	Yes
5	PSYCH	101	General Psychology	describe and demonstrate an understanding of applied areas of psychology (e.g. clinical, counseling, forensic, community, organizational, school, and health);	Yes
6	PSYCH	101	General Psychology	recognize and understand the impact of diversity on psychological research, theory, and application;	Yes
7	PSYCH	101	General Psychology	understand and apply psychological principles to personal experience as well as social and organizational settings.	Yes
8	MATH	136	Statistics	describe and analyze realistic data sets both large and small from disciplines including business, social science, psychology, life science, health science and education using graphs and statistics;	No
9	MATH	136	Statistics	analyze real world results, interpret the output of a technology-based statistical analysis and identify flaws in statistical reasoning;	No
10	MATH	136	Statistics	identify the standard methods of obtaining data and identify advantages and disadvantages of each;	No



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11	MATH	136	Statistics	calculate probability using the normal distribution, the t distribution and the basic laws of probability;	No
12	MATH	136	Statistics	describe sampling distributions, distinguish them from population distributions and analyze the role played by the Central Limit Theorem;	No
13	MATH	136	Statistics	compute confidence intervals of population means, proportions and standard deviations;	No
14	MATH	136	Statistics	identify the basic concept of hypothesis testing including Type I and II errors, finding and interpreting levels of significance including p-values, selecting the appropriate techniques for testing a hypothesis from one and two populations and interp	No
15	MATH	136	Statistics	perform chi-square tests using chi-square tables and statistical software or calculator;	No
16	MATH	136	Statistics	use linear regression and ANOVA analysis for estimation and inference, and interpret the statistics;	No
17	MATH	136	Statistics	calculate and present results using sound statistical reasoning, accurate statistical terminology and technology such as spreadsheets, graphing calculators or StatCrunch;	No

EXIT STANDARDS

- 1 describe and apply each step of the scientific method;
- 2 compare and contrast each research method used in the social sciences;
- 3 design a study using experimental research;
- 4 acquire skills necessary to develop a literature review using multiple search strategies;
- 5 evaluate critically the internal and external validity of research;
- 6 conduct statistical analysis of data;
- 7 apply ethical standards as they pertain to experimental research;
- 8 analyze the relationship between theory and research.

STUDENT LEARNING OUTCOMES

- 1 use scientific reasoning to interpret social and behavioral phenomena
- 2 apply problem solving in the context of research
- 3 critique experimental designs within the existing literature



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COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Scientific Understanding of Human Behavior Brief history of science (and the scientific method) Goals of science Understanding a research article Basic and applied research	8	0	8
2	Ethics American Psychological Association's and the American Sociological Association's Ethical Standards Review of the antecedents of contemporary standards Use of human and animal subjects Cost and benefit analysis Role of the Institutional Review Board	3	0	3



	<p>Research Design</p> <p>Research Concepts</p> <p>Theories, hypotheses, and variables</p> <p>Theoretical and operational definitions</p> <p>Types of variables (e.g. independent, dependent, and confounding)</p> <p>Samples and group assignment</p> <p>Causal and correlational relationships</p> <p>Descriptive Methods</p> <p>Types of descriptive studies (e.g. survey, observation, case study, and correlation)</p> <p>Observational techniques</p>			
3	<p>Reactivity, demand characteristics, observer bias, expectancy effects, and other biases</p> <p>Strengths and weaknesses of descriptive methods</p> <p>Experimental Methods</p> <p>Independent Group Designs</p> <p>Repeated Measures Designs</p> <p>Strengths and weaknesses of experimental methods</p> <p>Counterbalancing and practice effects</p> <p>Main effects and interaction effects</p> <p>Unobtrusive Measures of Behavior (physical trace methods, archival research methods, and content analysis)</p>	16	0	16



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	Other Research Designs Single-Case Research Design Quasi-Experimental Design			
4	Measurement Psychometric concepts: Reliability, validity, and standardization Reactivity of measures Qualitative versus quantitative data	6	0	6
5	Research Development The research proposal Pilot study	6	6	12
6	Beginning Research Literature review strategies, tools, and resources Peer review of research questions, theories, and hypotheses	9	0	9
7	Conducting Research Mock Institutional Review Board presentation Data collection	0	9	9
8	Data Analysis Descriptive versus inferential statistics Null and research hypotheses Distributions Graphing data effectively Statistical tests (e.g. correlation, chi-square, t-tests, and ANOVA) Statistical significance Type I and Type II errors	0	12	12



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9	Presenting Findings	6	0	6
	Scientific writing			
	American Psychological Association style			
	Presentation strategies			
				81

OUT OF CLASS ASSIGNMENTS

- 1 research paper (e.g that evaluates existing scientific findings regarding the impact of hypermedia on attention, and proposes an experiment related to this topic);
- 2 research (e.g. gather, analyze, and interpret experimental data on the impact of hypermedia on attention, and present in poster format).

METHODS OF EVALUATION

- 1 class participation in individual and group exercises to practice course exit standards (e.g. develop a written criteria for mock Institutional Review Board evaluation)
- 2 two in-class tests and one final examination requiring demonstration of course exit standards.

METHODS OF INSTRUCTION

- Lecture
- Laboratory
- Studio
- Discussion
- Multimedia
- Tutorial
- Independent Study
- Collaboratory Learning
- Demonstration
- Field Activities (Trips)
- Guest Speakers
- Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	ISBN	Date
Research Design and Methods	Required	New York: McGraw-Hill	9	Print	Bordens, Kenneth	0078035457	2014
Methods in Behavioral Research	Required	New York: McGraw-Hill		Print	Cozby, Paul	0077861892	2015