

Psychology 301
Introduction to Research Methods in Psychology
Dr. Paula Konoske

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Office Hours: before or after class Mon and Wed or by appointment

Black Board address: <http://its.sdsu.edu/blackboard/>

Lab Web page: http://www.sci.sdsu.edu/class/psy301/Konoske_Ally

Lab Email address (write this in when you get to lab):

Text: *Behavioral Research Methods* by Mark R. Leary, 5th Ed., Brooks/Cole.

Also required: *301 Lab and Project Manual Fall 08* by S. Mollenauer

Also required: Flash Drive

Psy 301 is all about answering questions scientifically.

Modeling the Process. Today you will be filling out the “Alcohol survey.” We will use this survey over the next several weeks to walk you through the steps of answering questions scientifically, making sense of data and writing reports. You will be completing a number of labs on this survey, each one completing one small step in the process. Then later in the semester you will be using those same steps to complete your own **independent research project**. We will use this opportunity to show you how to plan large projects, doing them in manageable bites until in the end you are quite amazed at what you have accomplished.

Psy 301 Goals. By the end of this class you will know how to

1. **Use scientific method to answer questions about human behavior**, specifically
 - **Measurement** issues, learning
 - to differentiate between constructs and observable behaviors
 - to develop operational definitions and observational strategies
 - to write good survey questions, and
 - to develop measures that are both reliable and valid
 - **Design** issues, learning
 - to state hypotheses that can be tested
 - to design or plan modest studies using correlational, experimental and quasi-experimental (real world) designs
 - to develop good strategies for sampling and assignment to treatments
2. **Make sense of data that you have collected or read in the news.**
 - **Interpretation of results**, learning
 - to interpret statistical results including significance, effect size, margin of error and confidence intervals
 - **Evaluation of designs**, learning
 - to state the type of conclusion, causal or otherwise
3. **Write scientific reports.**
 - **Accuracy**, learning
 - to follow directions to the letter and
 - to describe procedures and results in perfectly accurate detail
 - to submit reports that have been checked for spelling and sense
 - **APA style**, learning to follow specific rules for scientific writing
 - **Effectiveness**, learning to make clear and persuasive statements.

One key to success in Psy 301: Do not cut class.

About the Text

Good news on the text: students from previous semesters have said it is VERY easy to understand. Please be aware that you are responsible for all assigned reading, whether I have discussed it or not. A good rule is to learn the **bolded terms**. *This means you should be able to close your eyes and say what the term means.*

Quizzes

There will be periodic quizzes covering lecture, lab and reading material. Each quiz is worth 10 points and you will be able to drop your lowest one. If you miss a quiz because you are ill that will have to be your drop. **Never cut class to avoid a quiz.** If you aren't prepared, you may be able to guess some answers, and you can always put a note on it saying "*Please don't judge my intelligence by this quiz.*"

Exams

The exams will be part objective and part short answer. They will cover reading, lecture material and lab material. Each midterm will be worth 100 points. The final will be comprehensive and will be worth 150 points. **If you must miss an exam** for an extremely serious reason that you can document, **AND** if you have contacted me beforehand, I will arrange a make-up, **but I will NOT be able to give you full points.**

Laboratory

You will be doing things a little differently than you did in Psy 271. **A lab report is due at the end of each lab, and we have to insist that you do these reports in the lab.**

Psy 301 is an important course in the major, and so we need to know that people are doing the report and not just copying it from someone else. I'm sure you would be very irritated to learn that while you did all of your lab work conscientiously someone else just copied it from a friend.

Cheating

If we find that anyone has cheated, **using someone else's work OR giving work to someone else**, we will give him/her an F on the assignment and report him/her to the disciplinary officer—so don't let a friend get you in trouble.

Lab Assignments:

For each lab, you have an assignment to complete before lab. The TA's will be checking these assignments at the beginning of lab. **To receive full points on the lab you must have done the assignment before lab.**

Lab Rules:

- **You must attend YOUR lab section**, i.e. section in which you are officially enrolled.
- **Never insert the flashdrive before you have mailed in your assignment.**
We will remind you about these rules, but be forewarned: **if you insert the flashdrive before mailing in your assignment, you will receive a zero for that lab.**
- **Send in a report before you leave lab, and if necessary send in the rest later.**
- **If you miss lab or leave without doing the lab during the lab period, the lab report is still due but is worth only half the points.**
- **Revising labs.** We are going to let you revise the Lab 1 Report after you receive feedback, and you will have **the option to revise one additional report** for additional (**not the full number** of possible) **points**. You will also have the option, requirement actually, to revise some of the sections of the project.

Survey Project

We will work together as a class to construct a survey on some topic that interests us all. Then you will work individually, collecting your own data, analyzing it and writing reports. Instead of working on one enormous report at the end, you will be doing the project in small manageable sections throughout the semester, and then putting it together at the end. We have allotted a great deal of class time for the project reports, and the TAs and I will be giving you lots of help along the way.

Oral Report

Toward the end of the semester you will be doing a short (very short) report on a news article that reports some hot new research finding. Actually, you will be working in pairs so that your own oral report will be very short. We will give you the article together with some hints about how to critique it. Then you and your partner will describe the research and do a brilliant analysis based on what you have learned in PSY 301.

You must do the Oral Report to receive a grade in PSY 301.

Grades

In determining your grade we have two major concerns:

- You must show that you understand and can apply concepts, as shown in your **performance on exams**.
- You must demonstrate that you can work consistently and independently to produce quality work, as shown by your **performance on labs, the project, and quizzes**.

We consider both of these components to be very important. Therefore, **your grade will be determined by your average on BOTH components of the class**. Specifically, for

Grade of A: must average **A on the Exams AND** at least **B on the other components**.

Grade of B: must average at least a **B on the Exams AND** at least **B on the other components**.

Grade of C: must average at least a **C on the Exams AND** at least a **C on the other components**.

Grade of D: must average at least a **D on the Exams AND** at least a **D on the other components**.

You must complete the project to pass the class.

We will use standard grading criteria, 92 % A, 90 % A-, 88 % B+, 82 % B, 80 % B-, 78 % C+, 72 % C, 70 % C-, 68 % D+, 62 % D, 60 % D-.

You must do the Oral Report to receive a grade in PSY 301.

This means that you *cannot* earn an A by averaging a B on exams and earning all possible lab points. Conversely you cannot earn an A by earning an A on all the exams, but blowing off the lab/project components. You must do well on BOTH.

On the positive side, this means that if you get off to a bad start, you can make it up on the cumulative final and the project.

If you fall half way between two grades, we will base the decision on final total points and on factors such as **improvement across the term**.

		Points Each	Points Total
EXAMS	2 Midterms	100	200
	FINAL (comprehensive)	150	150
			350
Quizzes	10 (drop one)	10	90
Laboratory	6 Lab Reports	12	72
Oral Report	report & attend/discuss	15	15
Project reports	Survey Project Reports*		100
	Final Report	6	6
			283
Total			633

* Point breakdown for Survey Project on last page.

Class Schedule

Date	Topic	Reading Assignment
Week 1 Wednesday 9/3	Course Overview: the Alcohol Survey and the Class Project Why science? <i>Class survey</i> Why Method sections are important <ul style="list-style-type: none"> Prep for Lab 1: Method Alcohol Survey 	Chapter 1 Bring Lab Manual
Lab 1	BRING Flash drive Lab 1 report: Method, Alcohol Survey	Rep: 12 pts
Week 2 Mon 9/8	<ul style="list-style-type: none"> Prep for Lab 2 & the open article quiz: Using literature for an Introduction, Stating a hypothesis Review: distributions, <i>SD</i> , & normal curve, operational definition	Quiz 1: 10 pts <i>Qz: Lct, Ch 1 & syl</i> Ch 5 p. 126 - 138 Chapter 2
Wed 9/10	Studying Human Behavior: Variability, variability, variability “Error” vs. systematic variance	Quiz 2: 10 pts <i>Qz: Alcohol Article</i>
Lab 2	Lab 2 report: Introduction Alcohol survey	Rep: 12 pts
Week 3 Mon 9/15	Survey Project Big Picture: Reporting survey results <ul style="list-style-type: none"> Prep for Lab 3: Participants and reporting survey results Measurement: Reliability - True score, observed score and measurement error <i>Activity:</i> Measuring Pulse rate: true score vs. observed score	Manual p 32 Ch 3, up to Est Validity, p 67
Wed 9/17	Margin of Error in Alcohol survey data <ul style="list-style-type: none"> Prep for Lab 4: Margin of Error Variability in true score & measurement Error <i>Groups:</i> Survey Project Topics	Quiz 3: 10 pts <i>Qz: Lct, Ch 2, Pp3</i> Ch 5, Pp. 116 up to strat samp, p. 119
Lab 3	Bring Corrected Lab Report 1 Lab 3 rep: Method & Survey Response Results, Alcohol Survey	Rep: 12 pts
Week 4 Mon 9/22	Validity <i>Finalize Survey Topic</i> <i>Groups:</i> Reliability & Validity in measure of Anger Management Observation strategies	Ch. 3 p.67 to end <i>Before class:</i> Ch 4, Pp.79 –101
Wed 9/24	Writing good survey questions <ul style="list-style-type: none"> Prep for Lab 5: doing questions QUESTIONS DUE AT BEGINNING OF Lab 5 Review and prep for exam	Quiz 4: 10 pts <i>Qz: Lect, Txt since Q3</i>
Lab 4	Lab 4 rep: Margin of Error, Alcohol survey data	Rep: 12 pts

Week 5 Mon 9/29	MIDTERM I Object & Essay Scantron Form F-288 (Red) Ch 1, 2, 3, 4 Pp. 79 - 101, Ch 5 Pp. 116 – 119, 126– 138 Lecture & Lab Manual	All reading, lect, and lab. 100 pts
Wed 10/1	Correlation: making sense of correlational findings <ul style="list-style-type: none"> • Prep for Lab 6: testing the alcohol hypothesis <ul style="list-style-type: none"> - Significance - Effect size (Manual p. 28) <i>Groups:</i> Correlations in the News: Finding 3 rd (lurking) variables,	Ch 6 Pp 142 –157 <i>Omit Calculating r</i>
Lab 5	DUE: Survey Project Questions Teams critique and submit questions Report: <u>Corrected questions</u> AND <u>Team questions</u> TAs assist with lit search Literature DUE Week 7	Rep: 12 pts
Week 6 Mon 10/6	Survey Project Big Picture Class agree/work on Survey Project Questions <ul style="list-style-type: none"> • Prep for Lab 7 your hypoth: <u>Hyp Questions due next pd.</u> 	Quiz 5: 10 pts <i>Qz: Lct, txt, corr, prep Lab 6 & Manual P 32</i>
Wed 10/8	DUE at beginning of class: Two Questions for hypothesis Class FINALIZE(edit) Survey Project Questions Help with Survey Project Introduction Literature, rationale and hypotheses <ul style="list-style-type: none"> • Prep for Lab 8: article assignment 	Manual Pp 33 - 36 On next qz
Lab 6	Lab 6 Report: Alcohol Survey Hypothesis Results & Discussion	Rep: 12 pts
Week 7 Mon 10/13	DUE at beginning of class: Lab Prep p. 35 of Manual complete <ul style="list-style-type: none"> • Prep for administering project survey Pick up survey materials Data DUE Lab 9 <i>Activity:</i> comparing survey project predictions	Quiz 6: 10 pts <i>Qz: Manl Pp 33– 36</i>
Wed 10/15	Appointments, scheduled to go over exam & hypothesis help	
Lab 7	Bring flash drive to lab this week. DUE: Survey Project Hypothesis and DUE: Article final approval	10 of Survey Project Intro pts
Week 8 Mon 10/20	The idea of the experiment, “Gold standard”: Self-assigned vs. random assignment Independent & dependent variables & Control groups <i>Groups:</i> matched random assignment in study of cholesterol	Ch 8 Pp. 189 - 197
Wed 10/22	Advanced Correlational Strategies: Continuum of Internal Validity Partial Correlation, <i>Groups:</i> Partial Correlation Hypotheses, Operational Definition, & Exp vs Corr	Quiz 7: 10 pts <i>Qz: lect & Pp Ch 8</i> Ch 6, p. 157 to end
Lab 8	DUE: Lab 8 Article Assignment, <i>bring highlighted article</i>	15 of Survey Project Intro pts

Week 9 Mon 10/27	Advanced Correlational Strategies: Prediction & Directionality Begin sampling <i>Groups:</i> Rethinking news articles re sampling	Ch 7, Pp.167 – 176 (ideas only)
Wed 10/29	Survey Research: sampling issues & predicting elections • Prep for Lab 10: Survey Project Method <i>Groups:</i> Develop a sampling procedure	Ch 5, Pp. 109 – 126 Part is repeat
Lab 9	Lab 9 report: enter survey data and do Project Intro Survey Project Introduction DUE end of lab	Project Intro: 30 pts , including pts from Labs 7 & 8
Week 10 Mon 11/3 Wed 11/5 Lab 10	Review and prep for Midterm MIDTERM II Objective & Essay Scantron Form F-289 (F-288 OK) Ch 5 Pp 109 - 126, Ch 6, Ch 7 Pp 167 – 176, Ch 8 Pp 189 - 197 Lecture & Lab Man Pp 28, 32 – 36, and major pts Mid I Bring flash drive or 2 clean unused disks to lab. Bring your graded Lab 3 Report. Lab: Take Sample and Do Statistics for Participants Lab 10 rep: Survey Project Method	Quiz 8: 10 pts <i>Qz: lect & Pp Ch 6 & 5</i> 15 project pts
Week 11 Mon 11/10	Experiments Designs, Randomized Trials and Repeated Measures • Prep for Lab 11: Survey Response Results <i>Groups:</i> Experiments, IV & DV	Ch 8, Pp 189 – 197 again & Pp 197 -204
Wed 11/12	Experiments Designs, Randomized Trials and Repeated Measures Variance again, systematic and unsystematic <i>Groups:</i> Using Repeated Measures designs	
Lab 11	Be sure to bring • Your flash drive with your data. Lab 11 rep: Project Survey Response Results	15 Project pts
Week 12 Mon 11/17	Experiments (cont.) Significance testing • Prep Lab 12: Help with Survey Project Hypothesis Results Interpreting significant and non significant results Talking about <i>t</i> test results, i.e. differences (Hyp Results)	Ch 10 Pp. 246 – 253 & 258 In Depth Bring Lab Manual
Wed 11/19	Experiments (continued) <i>Groups:</i> Designing studies: Cor-Exp <i>Groups:</i> Finding the Confounding • Prep Lab 13: Help with Survey Project Discussion	Quiz 9: 10 pts <i>Qz: lect, Pp in Ch 8 & 10, Prep Lab 12</i> Ch 8 Pp.204 - end
Lab 12	Be sure to bring • Your flash drive with your data. • Your graded Lab 6 Report. Lab 12 Report: Project Hypothesis Results	15 Project pts

Week 13 Mon 11/24 11/25	DUE at beginning of class: Discussion outline Quasi Experimental Research: “Non equivalent” Control group Time Series Designs Regression to the Mean • Prep Lab 14: Help with Survey Project Abstract	Chapter 12
Wed 11/26	<i>Thanksgiving Break !!!!!!!!!!!!!</i>	
Lab 13	Drop-dead deadline: any outstanding lab reports Labs 1 - 12	
Week 14 Mon 12/1	<i>Oral Reports TBA</i>	Pts for both days
Wed 12/3	<i>Oral Reports (cont.)</i>	15 pts
Lab 13	Be sure to bring • DRIVE with ALL Project reports • Corrected Lab Report 12 Lab 13 Report: Project Discussion	15 Project pts
Week 15 Mon 12/8	Quasi Experimental Research (cont) <i>Groups:</i> design a quasi-experimental intervention study Ethics <i>Groups:</i> an ethical dilemma	Quiz 10: 10 pts <i>Qz: lect & Pp Ch 8, Ch 12</i>
Wed 12/10	Review and prep for final	
Lab 14	Bring all Graded Survey Project Reports Lab 14 report: Survey Project Abstract DUE: Complete Project	10 Project pts 6 Project pts
Final Exam Mon Dec 15th 3:30-5:30		

Point Breakdown for Project:

- 30 Survey Project Introduction
 - 10 Literature Search and Hypothesis
 - 15 Literature Review and Rationale
 - 5 Introduction with revisions, Title Page and Reference page
- 15 Method
- 15 General Results
- 15 Results of Hypothesis tests
- 15 Discussion
- 10 Abstract
- 6 Final Report