

# Research Methods in Psychology

Psy 3610, Spring 2012

MWF 7:10a-8:20a, Social and Behavioral Science 317

Heather Chapman, [heatherchapman@weber.edu](mailto:heatherchapman@weber.edu)

Office: Hurst Center 102E

Office Hours: By Appointment

Required Texts:

1. The Process of Research in Psychology; D. M. McBride
2. Lab Manual for Psychological Research, 2<sup>nd</sup> Edition; D. M. McBride & J. C. Cutting\*
3. APA: The Easy Way, 2<sup>nd</sup> Edition; P. M. Houghton & T. J. Houghton

*\*It is strongly recommended that students bring their lab manual to class each day, as we will use exercises from it intermittently throughout the course.*

## COURSE OVERVIEW & LEARNING OUTCOMES

The purpose of this course is to offer students an introduction to experimental designs, and design of experiments in the social sciences. Course topics will include selection of appropriate research questions, sampling, research study methods and data collection techniques, data analysis, and critical synthesis and evaluation of materials.

The course will be broken into two main components: the introduction of concepts and examples of psychological research, and the application of concepts to more real-world problems and situations.

Learning outcomes for this course have been developed around the 4 general learning objectives of the Psychology Department at Weber State University, and are based on recommendations of the APA: Knowledge, Application, Values/Ethics, and Communication. Specifically, the outcomes for the class are as follows:

### **KNOWLEDGE – Students will understand psychology as a scientific discipline.**

#### **1.1 Research Methods Content Knowledge**

Students will identify distinguishing characteristics of the different research methods discussed in class. These include, but are not limited to, t-tests, ANOVA, correlation, regression, and qualitative methods in general. Distinguishing characteristics include identification of independent and dependent variables, types of variables used in each method, assumptions of each method and how to remedy unmet assumptions, as well as correct interpretation of results.

### **APPLICATION – Students will apply psychological principles to explain social research and better understand the results of their own investigations.**

#### **2.1 Research Methods Application**

Students will apply appropriate research methods in relation to real-world problems and hypotheses. Students will adequately interpret results of statistical tests. This will include analysis of assumptions and correct interpretation of both magnitude and size of effect of all results.

**VALUES/ETHICS – Students will display an attitude of skepticism and intellectual curiosity about psychological issues. Students will recognize the need for ethical guidelines and will practice ethical behaviors in regard to the field of psychology.**

3.1 Research Methods Values

Students will compare and contrast past research and methodologies with current acceptable practices, and will identify limitations of past and current research.

3.2 Research Methods Ethics

Students will summarize relevant information from a number of sources into a written document that is appropriately aligned with the proper referencing guidelines.

**COMMUNICATION – Students will professionally communicate their understanding of terms, concepts, and theories via written and oral format.**

4.1 Research Methods Written Communication – Logic

Students will explicitly outline logical flow of information from broad to most fine-grained and will present all statistical results in logical form moving from least specific to most specific analyses; this logic will follow the form of “if A then B then C” and all evidence within the document will relate back to this logic.

4.2 Research Methods Written Communication – Clarity

Students will write in a clear and concise manner; appropriate professional language and tone will be used.

**Academic Integrity and Honesty Policy:**

Any academic dishonesty will not be tolerated. If a student is caught engaged in academic dishonesty in this course, he or she risks failing the course and being subject to academic discipline including the imposition of university sanctions. For more information, please see the university policy on cheating, which can be found in the WSU Student Code, Section IV, Part D, Paragraph 2.

**Students with Disabilities/Requests for Accommodations:**

Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Services Center (or Room 221 at the Davis Campus). SSD can also arrange to provide course materials in alternative formats upon request. To contact SSD by phone: (801) 626-6413 – Ogden; or, (801) 395-3524 – Davis.

<http://www.weber.edu/ssd>

**Use of Technology:**

The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore prohibited during class. Except in emergencies, students using cell phones will be asked to leave. Students are permitted to use computers during class for note-taking and other class-related work only. Those using computers during class for work not related to class content will be asked to leave.

**Contacting the Instructor:**

If at any point any student has questions or problems during the course of the semester, please feel free to contact the instructor. Use of the Canvas email system as the initial contact point for the instructor is recommended. Please allow 24-48 hours for a response. If for some reason you don't receive a response from me through Canvas, my e-mail address is always an option, but

please out of courtesy, use Canvas first. This assures that your email will not go unnoticed or get misplaced in the day-to-day shuffle of emails.

## **ASSIGNMENTS & GRADING**

**APA Note:** *Please note that all assignments are expected to be double-spaced, and follow correct APA format.*

### **Course Requirements:**

**Canvas:** All tests and assignments will be submitted through use of Canvas, which can be found using the following link: [learn-wsu.uen.org](http://learn-wsu.uen.org)

### **Attendance:**

Due to the applied nature of this course, attendance is required. Students are allowed **two (2)** unexcused absences during the semester without penalty. From the third absence on, **2pts** will be deducted from a student's grade for every day absent. Students absent more than **six (6)** days in the semester will be required to meet with the instructor, at which point it will be suggested that the student drop/withdraw from the class.

### **5 Research Questions (10 pts)**

#### **Date Due: Jan 4**

In order to facilitate selection of group members, each student will be asked to bring 5 appropriate research questions to class for discussion. Among other things, these questions should be testable and practical to research during a semester.

### **Ethical Behavior Online Courses (50 pts)**

#### **Date Due: Jan 6**

Students will be required to take and pass two online courses regarding ethical behavior in research. The first of these courses covers ethical treatment of subjects while the second discusses ethics in data usage. Students must complete these courses and turn in proof of completion in order to participate in the required group project throughout the semester. Not providing this proof will be grounds for failing the class.

#### **NIH Protecting Human Research Participants (25 pts)**

<http://phrp.nihtraining.com/users/login.php>

This course is designed by the National Institutes of Health. It has a more medical focus, but discusses issues surrounding proper selection of research participants as well as participant rights. It consists of 7 training modules with quizzes at the end of each. You will receive a Certificate of Completion after moving through the modules and answering each quiz. Submit a paper copy of this certificate for credit. The course will take approximately 1-1.5 hours to complete.

#### **NCES Forum Guide to Data Ethics Online Course (25 pts)**

[http://nces.ed.gov/forum/dataethics\\_course.asp](http://nces.ed.gov/forum/dataethics_course.asp)

This course is designed by the National Center for Education Statistics and covers appropriate use of data and appropriate release of individual subject information. The

course consists of an introductory presentation and 9 integrity canon presentations. After completion of these canons, there is an online survey students must complete. Upon passing this survey, a Certificate of Completion can be emailed to you. Submit a paper copy of this certificate for credit. Completion of the course will take approximately 1-1.5 hours.

**Data Analysis Assignment (25 pts):**

**Due Date: Feb 10**

There will be one (1) data analysis assignment throughout the semester. This assignment will require use of a data analysis program such as Excel or SPSS. It will be similar in expectation to the Content Exams, but will focus on application of techniques learned rather than discussion of thematic topics. The assignment will focus primarily on graphing and descriptive data.

**NCUR Volunteer Experience (50 pts)**

**Volunteer Dates: March 29, 30, 31**

**Due Date: April 6**

Weber State University is hosting the National Conference for Undergraduate Research over the weekend of March 29-31. This is a great opportunity to both showcase the great work being done by our undergraduate students, but also demonstrate our quality of character through positive interactions and hosting efforts for all the out of town guests that will be enjoying our campus. This is a monumental effort, and requires a great deal of work and help from all of us. As such, class will not be held on Thursday, March 29. Instead, all students will be expected to participate in NCUR in some way and then report on the experience. The following is a list of possible ways a student can participate in NCUR and the reporting requirements for each:

1. **Volunteer** – As stated above, a conference such as NCUR requires a great deal of help from the entire university community. The best way we can participate is through offering our services as volunteers. There are many volunteer opportunities available. Students choosing this method of participation will
  - a. Sign up to volunteer for at least 2 hours at any NCUR event
  - b. Get a signature of completion from a WSU NCUR official
  - c. Write a 2 page report on the experience
2. **Oral Presentation or Poster Session Presenter** – Some of you may have submitted abstracts and been selected to present an oral presentation or poster at NCUR. This is a wonderful way to participate, and will be a great experience. To get credit for the class, those students presenting at NCUR will
  - a. Complete their oral presentation or poster
  - b. Write a 2 page report on the experience
3. **View Poster Session or Oral Presentation as Audience Member** – Those of you who do not wish to volunteer or who are not presenting at NCUR can receive credit for the course by being an audience participant to presentations and poster sessions. Students choosing this method to gain credit for the class will
  - a. Attend three (3) poster sessions or oral presentations
  - b. Critically review the material that is presented to you via use of the Oral Presentation Critique Sheet that is available on Canvas

- c. Write a 2 page report summarizing what was presented to you for each poster session or oral presentation you attend

The best volunteer jobs will fill up quickly, so do not procrastinate or wait until the last minute to try to sign up. I recommend you do this in the first few weeks of the semester. All necessary information for NCUR can be found at the following link:

<http://www.weber.edu/OUR/conferences/NCUR.html>

**Group Research Project (300 pts):**

In order to get a more practical and hands-on experience with conducting research, students will break up into groups of **two (2)**. In the case of an odd number of students, three people in a group may be approved. Students will be required to design the experiment, gather data, analyze data, and discuss results. This will be done initially via a series of smaller assignments. After receiving feedback from the instructor regarding the content and appropriateness of these smaller assignments, students will then be required to make any necessary corrections and turn all pieces in at the end of the semester in one complete final project. Any student not turning in any portion of the research project will get no better than a “C” grade overall for the project. Students missing **two (2)** or more pieces of the final project will receive no more than half credit for the project.

The expected pieces of information to be turned in and the due dates are below. More information for each piece will be given throughout the semester.

	<b><u>Length:</u></b>	<b><u>Due Date:</u></b>	<b><u>Pts:</u></b>
<b>Outline/Problem Statement</b>	1-1.5 pp	Jan 13	25
<b>Informed Consent Statement</b>	As Required	Jan 20	15
<b>IRB Form Completion and Approval</b>	As Required	Jan 27	25
<b>Literature Review</b>	7-10 pp	Feb 24	25
<b>Data Collection</b>	25 persons	As Possible	--
<b>Methods</b>	3-5 pp	Mar 23	25
<b>Results/Discussion</b>	3-5 pp	Mar 30	25
<b>Peer Review of Each Major Section</b>	As Required	Mar2, Mar30, Apr 6	60
<b>Final Written Report</b>	15-25 pp	Apr 13	100

**Content Exams (50 pts each):**

**Due Dates: Feb 21, April 19**

There will be **two (2)** exams in the form of essay questions during the semester. The purpose of these exams is to ensure that students are able to discuss in their own words the research process, not remember facts in a set amount of time. Thus the take-home format will be utilized. Despite this open format, students are expected to complete the exam on their own without input from other members of the class.

**Extra Credit Opportunity (up to 10 pts):**

Students are encouraged to participate in ongoing research projects within the department of Psychology or around the university as a whole. In order to receive the extra credit, students will

need to participate in some level of research at the university. This could include participating in a survey or other data collection step, helping to collect data, or helping with the other aspects of research such as data analysis or reviews of literature. After completion of this activity, students must write up a two-page summary of the experience and submit it via e-mail to the instructor. Extra credit points will be awarded based on the level of engagement.

**Grading Scale:**

A	93-100%	C	73-75%
A-	89-92%	C-	69-72%
B+	86-88%	D+	66-68%
B	83-85%	D	62-65%
B-	79-82%	F	Below 62%
C+	76-78%		

**COURSE CALENDAR**

	Date	Chapter	Assign Due
M	2-Jan	Ch1	
W	4-Jan	Ch1, Ch2	5 Research Questions; Determine Pairs
F	6-Jan	Ch2, Ch5	Ethics Assignment
M	9-Jan	Problem Statement Discussion	
W	11-Jan	Ch5, Stanford Prison Experiment	
F	13-Jan	Ch5, Stanford Prison Experiment	Problem Statement
M	16-Jan	NO CLASS -- MLK Jr Day	
W	18-Jan	Ch3, Informed Consent Examples	
F	20-Jan	Ch3	Informed Consent Statement
M	23-Jan	Ch4	
W	25-Jan	Ch4, IRB Discussion	
F	27-Jan	Ch4	IRB Application
M	30-Jan	Ch6	
W	1-Feb	Ch6	
F	3-Feb	--	Reading #1
M	6-Feb	Ch7	
W	8-Feb	Ch7	
F	10-Feb	Qualtrics Lab Day?	Data Analysis Assignment
M	13-Feb	Ch8	
W	15-Feb	Ch8	
F	17-Feb	--	Reading #2
M	20-Feb	NO CLASS -- Presidents Day	Exam 1 Due (Feb 21)

W	22-Feb	Ch9	
F	24-Feb	Ch9	Lit Review
M	27-Feb	Ch10	
W	1-Feb	Ch10	
F	2-Mar	--	Reading #3; Peer Review Lit Review
M	5-Mar	Ch11	
W	7-Mar	Ch11	
F	9-Mar	SPSS Lab?	
M	12-Mar	NO CLASS -- Spring Break	
W	14-Mar	NO CLASS -- Spring Break	
F	16-Mar	NO CLASS -- Spring Break	
M	19-Mar	SPSS Lab?	
W	21-Mar	SPSS Lab?	
F	23-Mar	Ch12	Methods
M	26-Mar	Ch12	
W	28-Mar	Ch13	
F	30-Mar	NO CLASS -- NCUR, Volunteer!	Results/Discussion; Peer Review Methods
M	2-Apr	--	
W	4-Apr	Ch13	
F	6-Apr	--	Peer Review Results/Discussion
M	9-Apr	Ch14	
W	11-Apr	Ch14	
F	13-Apr	Ch14	Final Report
F	19-Apr	FINAL EXAM DUE	

*All readings can be found on the Canvas course page.*

**Changes in Course Assignments and Schedule:**

The instructor reserves the right to adjust course readings, assignments, and test dates to best attain the objectives of the course. Any changes will be announced in class.