

RESEARCH METHODS IN PSYCHOLOGY (PSY 303)

University of Oregon

Spring 2016

T/Th 10:00-11:20 am ♦ Straub 245 ♦ 4 credits ♦ CRN: 35182

<http://canvas.uoregon.edu>

Instructor

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Labs:	Th 12:00-1:20pm, Straub 006 (CRN: 35188)	Kathryn
	Th 2:00-3:20pm, Straub 006 (CRN: 35189)	Jacob
	Th 2:00-3:20pm, Straub 008 (CRN: 35191)	Alec
	Th 4:00-5:20pm, Straub 006 (CRN: 35190)	Leslie
	Th 4:00-5:20pm, Straub 008 (CRN: 35192)	Nicole

COURSE MATERIALS

(1) Required materials:

- ♦ **Textbook:** Morling, B. (2015). *Research Methods in Psychology: Evaluating a World of Information* (2nd ed.). New York: Norton.

The textbook has a website with supplemental materials that may be helpful for your studying:

<http://www.norton.com/college/psych/research-methods-in-psychology/>

- ♦ **iClicker:** If you do not own one already, you will need to purchase an iClicker for use in class. It will be used to track attendance and to do regular learning assessments.

(2) Helpful resources for writing assignments (recommended)

- ♦ Clark, H. H. Everyone can write better (and you are no exception). Advice to students of psychology. http://www.psychology.stonybrook.edu/sbrennan-psy384/papers/hc_write.html
- ♦ American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: APA.
- ♦ Strunk, W., Jr., & White, E. B. (2000). *The elements of style* (4th ed.). New York: Longman.

COURSE DESCRIPTION

In this course you will learn how to think like a psychologist and how to conduct empirical research on human behavior. We will consider all aspects of an empirical endeavor, from formulating a testable scientific hypothesis, to collecting relevant and valid data, to analyzing and communicating these data, to asking what's next. Understanding the principles of scientific research is essential for being a wise *consumer* of research, which is an important skillset for many careers and for being an informed citizen. This course will also focus on building your skills as a *producer* of psychological research. You will be expanding on the data analysis skills that you gained in PSY 302 in order to design, analyze, draw conclusions from, and write up scientific research in psychology. By the completion of this course, you will have the skills required to be a critical and effective consumer and producer of psychological research.

LEARNING OUTCOMES

By the end of this course you should be able to:

- ◆ Review existing psychological literature: perform effective literature searches, identify key research questions and hypotheses in scientific articles, and critically evaluate the research design and quality of evidence presented
- ◆ Critically consume scientific research in the media: think like a scientist when you read scientific headlines by using the skills you have practiced to evaluate the underlying research
- ◆ Produce research: formulate a specific research question, design multiple ways to empirically address that question, make specific predictions about the patterns of data, choose and conduct basic statistical techniques for specific research questions and specific data sets, and draw appropriate conclusions
- ◆ Communicate psychological research clearly and effectively: write up scientific reports and consider both the strengths and limitations of the empirical evidence

COURSE EXPECTATIONS

This course includes lecture meetings and weekly lab meetings. **Attendance at all lectures and lab is essential to your success in this course.** Attendance in lecture will be tracked using iClickers. Lectures will focus on developing your skills as consumers of psychological research, but they will also provide you with the tools for being a producer of research, skills you will practice in the labs. This course promotes active learning through discussion, in-class questions and activities, and hands-on lab exercises. When in class, you should stay engaged with the material rather than just going through the motions. Ask questions. Take notes. Go to office hours.

Come **prepared** to class. Read relevant assignments prior to lecture, think about what you read, and bring questions if you have them. You will not do well on exams if you do not keep up with the reading. Keep up with the lab writing assignments. You will also not do well in the course if you fall behind on your lab assignments.

STUDENT WORKLOAD

When you complete this course, you will earn 4 credits toward your degree. According to University principles governing credit and contact hours, each credit equals 30 hours of work for the term. Four credits are thus equivalent to 120 hours of work in total, or 12 hours per week for 10 weeks. You will spend 4 hours in class and lab each week. The other 8 hours should be spent reading the textbook, completing writing assignments for lab, and studying for exams.

COURSE REQUIREMENTS

Reading Assignments

You should complete the assigned reading **before** coming to class. The textbook is accessible and engaging. Although the reading load will be relatively demanding, it should be fun and rewarding to do. Material from the readings will be on the exams, and you will also apply principles from the readings to your lab assignments.

Attendance/Participation

You must participate in *ungraded* class exercises using your iClicker to get credit for each day you attend lecture. While you get 2 “free” miss days, you shouldn’t use them unless absolutely necessary; if you skip class or lab, you will miss important information. **Important note on iClickers: You are required to have an iClicker and register it on Canvas by the start of Week 2, or you will begin to lose attendance points.**

Exams

There will be 3 required exams (on Tuesday in weeks 4, 7, & 10) and an optional cumulative final exam. Exams will consist of multiple-choice questions and short answer questions, and will cover all textbook and lecture material since the previous exam. If you take the optional final exam, your lowest grade out of the four exams will be dropped. I use this policy so that poor performance on one exam or an absence does not negatively impact your class grade. Because of this, there are no make-up exams. **If, for whatever reason (aside from university sponsored excuses), you miss an exam, you must take the final exam to make up for the missed exam.**

Labs

The labs will focus on hands-on practice as a producer of psychological research. You are expected to attend your lab section every week, complete lab assignments on time, and build your skills consistently throughout the quarter. The lab writing assignments are scaffolded, such that you will practice and receive feedback on each of the components of an APA-style research report before revising and synthesizing your writing assignments into a single research paper that includes a literature review, a correlational research study, and a related experimental research study. The lab writing assignments are worth 40% of your course grade, reflecting the importance of learning to develop a research question, summarize what is already known, test hypotheses, and communicate new conclusions. Lab assignments are due at the start of lab. **Late assignments will be penalized by 50% regardless of when they are submitted**, and because assignments build on each other, no assignments will be accepted more than 5 days late. An exception may be made for documented medical or family emergencies.

GRADING

Final grades in this course will be determined by the following:

- ◆ Attendance/participation: 6% – up to 2 classes can be missed without penalty
- ◆ Three exams: 54% (18% each) – optional final exam can replace lowest exam grade
- ◆ Lab assignments: 40% (5% for each draft; 15% for final paper)

Grades will be distributed as follows:

A+	97-100%	B+	87-89%	C+	77-79%	D+	67-69%	F	0-59%
A	93-96%	B	83-86%	C	73-76%	D	63-66%		
A-	90-92%	B-	80-82%	C-	70-72%	D-	60-62%		

Please see the psychology department guidelines for a description of the type of achievement that each grade signifies: <http://psychology.uoregon.edu/courses/department-grading-standards/>

Extra Credit

You can earn extra credit in this course by serving as a participant in the Psychology Human Subjects Pool. If you decide to participate in psychological research, you will earn 1% of extra credit toward your *final grade in the course* for each hour you participate, up to a maximum of 3% (credits beyond the maximum of 3 will not be counted). For example, 3 hours of credit would increase a final grade of 78% up to an 81%, giving you a B- for the course instead of a C+. To participate, follow the guidelines for the Human Subject Pool posted at <http://psychology.uoregon.edu/research/human-subjects-pool/>.

Students that prefer not to participate in the Psychology Human Subjects Pool can instead collect extra credit by writing a short paper. If this is your preference, please see your instructor to discuss the details of the requirement.

Additionally, I offer 1% extra credit towards your course grade for completing an anonymous online midterm course evaluation. More details will be provided in lecture. Again, the maximum amount of extra credit that can be earned in the course is 3%. **All extra credit work must be completed by Friday, June 3.**

SPECIAL NEEDS

Accessible Education Center (AEC)

If you have a documented disability and anticipate needing accommodations in this course, please notify me as soon as possible. Also, please request that a counselor at the Accessible Education Center (uoaec@uoregon.edu, 541-346-1155) send a letter verifying the type of accommodation that is appropriate. For a list of resources provided by the Accessible Education Center, please see <http://aec.uoregon.edu>

Students for Whom English is a Second Language

If you are a non-native English speaker and think you may have trouble in this course due to language difficulties, please see me as soon as possible to make any necessary special arrangements.

ACADEMIC INTEGRITY

We take academic integrity seriously. All work submitted in this course must be your own. Cheating includes providing or accepting information on an exam or allowing someone else to copy your work. In addition, lying to try to get points (e.g., lying about having turned in an assignment on time) is considered academic dishonesty and will be treated as cheating. Plagiarism means copying someone's written work without proper citation (this includes your classmate's work, scholarly articles, Wikipedia, or other websites).

All instances of cheating and plagiarism will have serious consequences. You will receive a zero on the assignment and be reported to UO's student conduct coordinator. If the offense is serious, you will receive an F in the course.

Simply put: Don't cheat and don't plagiarize. You will be mad at me, and (hopefully) disappointed in yourself. It's not worth it. If you have any questions about what constitutes academic dishonesty, please ask your lab instructor or me.

For more information, see the UO website regarding academic honesty at:

<http://uodos.uoregon.edu/StudentConductandCommunityStandards/AcademicMisconduct.aspx>

CLASSROOM ETIQUETTE

As a courtesy to your instructors and to your fellow classmates, please arrive on time for class and stay for the duration of the class period. Getting up in the middle of class is very disruptive. Please turn off cell phones and any electronic devices that might be distracting to others at the beginning of class. Treat your fellow students and your instructors with respect.

Lecture Schedule

**Lecture schedule may change, but exam dates will not change unless absolutely necessary.*

Week	Date	Topic	Reading Assignment
1	T 3/29	Course introduction and overview	Ch. 1
	Th 3/31	Theories & hypotheses	Ch. 2; Register i-clicker
2	T 4/5	Three claims, four validities	Ch. 3
	Th 4/7	Three claims, four validities	
3	T 4/12	Measurement reliability and validity	Ch. 5
	Th 4/14	Measurement reliability and validity	
4	T 4/19	Exam 1	
	Th 4/21	Research ethics	Ch. 4
5	T 4/26	Surveys and Observations	Ch. 6
	Th 4/28	Sampling	Ch. 7
6	T 5/3	Correlation	Ch. 8
	Th 5/5	Multivariate correlation	Ch. 9
7	T 5/10	Exam 2	
	Th 5/12	Intro to experimental designs	Ch. 10
8	T 5/17	Confounds and obscuring variables	Ch. 11
	Th 5/19	Complex experimental designs	Ch. 12
9	T 5/24	Complex experimental designs	
	Th 5/26	Quasi-experimental designs	Ch. 13
10	T 5/31	Exam 3	
	Th 6/2	Generalizing results and review	
11	F 6/10	8:00am Optional Final Exam	

Lab Schedule

**All assignments are due at the beginning of your weekly lab section.*

**Please see your lab instructor for questions about lab assignments and grading.*

**You are expected to attend your weekly lab section and follow all Canvas announcements – important details about assignments will be shared in lab and on Canvas.*

Wk	Date	Topic	Skill Practice	DUE
1	Th 3/31	Generating a research question	Finding articles	
2	Th 4/7	Writing for psychological science	APA writing style and citations	Article summary (*ungraded but will be part of lit review)
3	Th 4/14	Working with data files	Manipulating Excel data files; Plotting data	Literature Review Draft
4	Th 4/21	Using data to answer a research question	Descriptive data analysis & interpretation	Plot activity (*ungraded but will be part of Results)
5	Th 4/28	Research design	Design two different ways to test a hypothesis (correlational & experimental)	
6	Th 5/5	Using correlational data to answer a research question	Correlational data analysis & interpretation	Correlational Methods Draft
7	Th 5/12	Experimental design	Design an experiment to test your hypothesis	Correlational Results & Discussion Draft
8	Th 5/19	Using factorial data to answer a research question	Factorial data analysis & interpretation	Experimental Methods Draft
9	Th 5/26	Feedback & group discussion	Instructor choice	Experimental Results & Discussion Draft
10	Th 6/2	Feedback & group discussion	Instructor choice	Final Full Paper