PSY 301 SCIENTIFIC THINKING (CRN: 42517)

COURSE INFORMATION

Time and Location: MTWR 12:00-1:50, 214 MCK

Instructor: Z. Job Chen, Ph.D.

Email: zhuochen@uoregon.edu

Office Hours: MW 1:50-2:50, 462 Straub

Техтвоок

Slides will be posted on Canvas. Homework and quizzes will follow

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

For extended study in psychometry and psychometrics, please refer to

Anastasi, A. & Urbina, S. (1997). Psychological Testing. New York: Pearson.

Revelle, W. (2017). Psychometric Theory. personality-project.org/revelle/syllabi/405.syllabus.html

COURSE DESCRIPTION

This course is to introduce you to fundamental concepts and methods used in psychological studies, with an emphasis in psychometric theory and practice, and methods of observing and measuring behavior. The lecture will cover major topics outlined in Morling (2015), and complement discussion in psychometry and psychometrics.

In the departmental context, this course is the first course in the PSY 301-303 sequence for psychology majors. Majors will be building critical thinking skills and an understanding of how knowledge is generated in psychological research in preparation for acquiring data analysis skills in PSY 302. In PSY 303 you will be using the skills you gained in PSY 301 and PSY 302 to design, implement, analyze, draw conclusions from, write up, and present scientific research in psychology.

In the campus-wide context, PSY 301 meets the criteria of a Group-Satisfying Science (SC) course by introducing you to the fundamental methods that are used in psychological science and demonstrating the way knowledge is created in the field. The course emphasizes the critical thinking skills that are essential for informative scientific endeavors. The course addresses upper division science group criteria by encouraging the specific application of general scientific principles and skills.

SPECIAL ACCOMMODATIONS

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.

COURSE REQUIREMENTS

Reading and Participation

Each day, we will go through one chapter of the text book (Morling, 2015). You should read the textbook and/or relevant materials **before** coming to class, and ask questions and actively participate during class time.

Homework/Quiz

There is a multiple-choice homework/quiz for each chapter every day, to be completed on Canvas. You are allowed two attempts at each quiz, and your final grade will be the average of the two attempts.

Each quiz is worth 25 out of 400 points (6.25%).

<u>Final Exam</u>

Cumulative final exam: 12.5%.

Grades will be distributed as follows:

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

Schedule

Date	Торіс	Reading	Due for Quiz/Homework
8/21	Course overview: Thinking like a scientist	Chap. 1	
8/22	Why do research, and where to find it	Chap. 2	
8/23	Variables and claims	Chap. 3	
8/24	Research ethics	Chap. 4	Quiz 1-4 due 8/27
8/28	Measurement reliability and validity	Chap. 5	
8/29	Surveys and observations	Chap. 6	
8/30	Sampling and frequency	Chap. 7	
8/31	Bivariate correlation	Chap. 8	Quiz 5-8 due 9/3
9/4	Labor Day No Class		
9/5	Multivariate analysis	Chap. 9	
9/6	Experimental methods	Chap. 10	
9/7	Confounds and obscuring variables	Chap. 11	Quiz 9-11 due 9/10
9/11	Multiple IVs	Chap. 12	
9/12	Quasi-experimental designs	Chap. 13	
9/13	Replicability and generalization	Chap. 14	
9/14	Final Exam		Quiz 12-14 due 9/14