310: Methods in Psychological Research

Course Description

Methods in Psychological Research introduces statistics and research design for students minoring in psychology. Prereq: P—PSY 151 (D, QR)

This course is designed to help students develop the conceptual background and practical skills necessary to evaluate the statistics encountered in their coursework and in everyday life. It emphasizes selection, application, and interpretation. Topics to be covered include statistical inference, probability distributions, sampling, hypothesis testing, and correlation. The goal will be to go beyond rote memorization of abstract formulas and for students to develop an appreciation for the critical role that statistics plays in psychological science.

Required Materials

Morling, Research Methods in Psychology https://wwnorton.com/books/9780393893724

Course Assignments

Grading Policy

Typically, an A- is defined as 90% of the highest point total in the class, B- as 80% of that total, C- as 70 and D- as 60%. I may shift these values down to provide a better fit to the actual point distribution. By scaling to a percentage of the highest point total in the class, each student has a much better chance of receiving higher grades than if no re-scaling were done. This curve can only help your grade.

The full table is provided below:

Table 7.2: Full Table

Letter	Cutoff
A	0.95
A-	0.90
B+	0.87
B	0.83
B-	0.80
C+	0.77
C	0.73
C-	0.70
D+	0.67
D	0.63
D-	0.60

Curve Projections

Unsurprisingly, students have many questions about the curve in this class. For tests and other assignments, I try to provide a projected letter grade. This projected letter grade is there to give you a sense of what your score *would* be if I implemented the class curve on this particular assignment. It is a projection. It is not a guarantee. These projected letter grades are not incorporated into your final grade. Trust me, you do not want me to curve by assignment.

Quizzes

There will be 14 multiple-choice reading quizzes (effectively these are weekly). The best 10 out of 14 quiz grades will be used to determine your total quiz grade. You can drop 4 of the quizzes for any reason.

Exams

There will be 3 exams. The best 2 out of 3 exam grades will be used to determine your total exam grade. You can drop 1 of the exams for any reason.

Exams Dates

- Exam 1: Friday, 02/11
- Exam 2: Friday, 04/01
- Exam 3: During Finals, 05/06

Short Assignments

There will be two (2) short assignments in this course. These assignments will allow you to incorporate some of your own interests into the course. Such interests could be related to your career, another class you're taking, a hobby you're exploring, or some other random fancy. They will typically be approximately two (2) pages. I will provide more specific written guidelines at least two weeks before each assignment is due.

The best one (1) out of two (2) short assignments will be used to determine your total short assignments. You can skip one of the assignments for any reason.

Assignment Dates

- Assignment 1: Friday, 03/04: Qualitative Critique 1
- Assignment 2: Friday, 04/29: Qualitative Critique 2

Engagement Activities

There will be multiple engagement activities in this course. These activities will allow you engage with the material for each module. Details about the specific activities will be provided on canvas. Students must complete two activities per module.

Grading Weighting

- 200 points of your grade will be determined by your best two (2) exams.
- 50 points of your grade will be determined by your best assignment.
- 50 points of your grade will be determined by your engagement.
- 100 points of your grade will be determined by your best 10 quizzes.

Schedule

Search:

module	start	topic	week	milestones
1	01/10	Introduction	Week 01, 01/10 - 01/14	
2	01/17	Statistical Foundations	Week 02, 01/17 - 01/21	
3	01/24	Describing Data with R	Week 03, 01/24 - 01/28	
4	01/31	Univariate Distributions	Week 04, 01/31 - 02/04	
5	02/07	Bivariate Distributions	Week 05, 02/07 - 02/11	Exam
6	02/14	Probability Theory	Week 06, 02/14 - 02/18	
7	02/21	Binomials and other sampling distributions	Week 07, 02/21 - 02/25	
8	02/28	Hypothesis Testing	Week 08, 02/28 - 03/04	Assignment
9	03/07	Spring Break	Week 09, 03/07 - 03/11	
10	03/14	T-Tests	Week 10, 03/14 - 03/18	
11	03/21	Regression	Week 11, 03/21 - 03/25	
12	03/28	Causal Inference	Week 12, 03/28 - 04/01	Exam
13	04/04	ANOVA	Week 13, 04/04 - 04/08	
14	04/11	Applications in R	Week 14, 04/11 - 04/15	

module	start	topic	week	milestones
15	04/18	Applications in R	Week 15, 04/18 - 04/22	
16	04/25	Review	Week 16, 04/25 - 04/29	Assignment
17	05/02	NA	Week 17, 05/02 - 05/06	Exam