RESEARCH METHODS
PSYC 3340 (CRN 16506) Fall 2023
Old Main, Room 306
Tuesdays & Thursdays, 9:30 a.m. to 10:50 a.m.

Instructor: Lawrence Cohn, Ph.D.
Office: 118 Psychology Building
Contact Info: E-mail: Lcohn@utep.edu; Phone: 747-6567

Office Hours: Tuesdays & Thursdays 3:00 p.m. – 4:30 p.m.
or by appointment

Teaching Assistant: To be announced


Note: To ensure that you don’t fall behind in your readings while ordering and obtaining the textbook, I have uploaded the first three assigned chapters to our Blackboard course shell. Just go to the Home Page of our Blackboard course shell, scroll down to the folder labeled “Initial Book Chapters” and download the chapters in pdf format.

Additional Readings: If time permits, I will provide ‘pdf’ copies of additional readings. These readings will be uploaded to the folder labeled “Additional Readings” within our course shell in Blackboard. Readings include the following:


3. Memorandum Opinion (December 20, 2005): Case No. 04cv2688 Tammy Kitzmiller, et al. vs Dover Area School District. [We will read selected pages of the Judge’s ruling regarding the ‘theory’ of Intelligent Design and whether this ‘theory’ can be considered scientific and taught in high school science classes]
**Additional Resources:** Below are resources that help distinguish between sense and nonsense, science and pseudoscience, wild claims and research evidence.

   (you can register for a free weekly engaging newsletter)

2. “Science Vs”. A weekly podcast pitting fact against fiction. Current episodes available on Spotify; old episodes available on Gimlet through YouTube.

   [https://www.youtube.com/watch?v=vOY1NKd2T_8](https://www.youtube.com/watch?v=vOY1NKd2T_8)

4. Richard Wiseman website: Scientist and magician, Dr. Wiseman “… holds Britain’s only professorship in the public understanding of psychology at the University of Hertfordshire”. His YouTube videos have been viewed more than 400 million times.  
   Website: [https://richardwiseman.wordpress.com/?s=pseudoscience](https://richardwiseman.wordpress.com/?s=pseudoscience)

**WELCOME!!!** This course will introduce you to many important concepts, research designs, measurement issues, and conceptual debates underlying research findings in psychology and the behavioral sciences. We also will discuss the distinction between science and pseudoscience, the alleged replication crisis in psychology, and the strengths and weaknesses of experimental, correlational, and observational research. The material that we review in the course is quite exciting and has implications for many majors, disciplines, professions, and everyday decisions.

To help introduce key issues in behavioral and social science research methods, we will spend time discussing several extraordinary claims and phenomena, including the following:

1) a remarkable horse (named Clever Hans) that allegedly solved complicated math problems;

2) dowsing rods that are used to, allegedly, find hidden sources of water and minerals;

3) *facilitated communication* techniques that allegedly help autistic children communicate extensively with parents and teachers;

4) a world-renowned psychic (Uri Geller) who claimed to communicate telepathically and bend spoons using mental powers (and we will watch videos of Geller and other individuals allegedly displaying these feats);

5) a world famous magician's million dollar commitment to pay anyone who demonstrates paranormal ability under controlled scientific conditions;

6) a fascinating court case involving claims that 'intelligent design' should be taught in high school science classes as an alternative to Darwin's theory of evolution (and we will read a portion of the judge's legal 'opinion').
We will design studies to test several of the latter remarkable claims and phenomena. We won’t conduct the studies themselves but we will identify the necessary experimental design features that would have to underlie rigorous tests of each claim. The latter exercises and discussions will lay the foundation for much of the course. We will also discuss key principles guiding the ethical conduct of research with animals and humans.

The course has several goals, including 1) increasing your knowledge of key research design issues in the psychology and the behavioral sciences, 2) increasing your empirical orientation towards knowledge, and 3) increasing your ability to draw connections between research and your everyday life. More generally, the course should increase your ability to think in terms of evidence, and ‘quality of evidence’, when evaluating claims about human behavior and mental processes.

**Class Format:**
This course will be a mixture of lectures and discussions, in-class tasks, and readings. *Please complete all assigned readings and tasks before coming to class each day!* The tentative topics and reading assignments for each class are provided on the following pages. We may deviate from this tentative schedule, so the dates and topics are intended as rough guides for where we will be throughout the semester.

**Writing Assignment and “Hands-On” Writing Exercises:**
A writing assignment has been incorporated into the course (described below). Learning to write clearly is a skill that should benefit you in almost every profession or professional pursuit. Thus I have also incorporated into the course two in-class, hands-on, ‘fun’ writing exercises that will help you practice several easy-to-adopt tips for writing clearly.

**Class Participation and Attendance (5% of course grade)**
Attending our weekly classes is required and critical for you to master the course material. If you miss four (4) or more classes then you will earn zero credit for class attendance. Please arrive to class on time. Class attendance has been shown to improve grades and graduation success. So don’t skip-out on class….for lots of reasons!

**Quizzes (30% of course grade):**
Four quizzes will be administered in-class during the semester. The quizzes will be based on reading assignments and material discussed in class. I will drop your lowest quiz grade when computing your final course grade. Thus your three highest quiz grades will each contribute 10% to your final course grade.

**Examinations (40% of course grade):**
Two online exams will be administered during the semester. The tentative exam dates are provided on the next pages. *The exam dates are tentative, so please do not plan business trips or other obligations around the latter dates.* Each exam contributes 20% to your course grade.
Exams will be a combination of essay, short answer, and multiple-choice questions. If you miss one exam then you will be permitted to take a comprehensive make-up exam to replace the grade of zero that was assigned to your one missed exam. Note: the comprehensive make-up exam will cover address material covered during the semester and the exam will be administered during ‘final exam time slot’ scheduled by UTEP (Tuesday December 12th 2023 from 9:30 a.m. to 10:50 a.m.).

**Mini-Term Paper (20%):**

Students will be required to write a 4-5 page paper (see attached Mini-Term Paper Assignment Instructions). Your papers may not be longer than 5-pages. Papers must be typed and double-spaced. The paper contributes 20% to your course grade. The paper is due by 11:59 p.m. on Thursday November 16th 2023. Please submit your paper to me as a WORD file, along with two of your drafts (the drafts can be submitted as hard copies if you wish). Note that on Tuesday December 5th we may have the opportunity to review writing issues that arose in your papers and discuss easy-to-adopt strategies for improving your writing. The latter ‘writing session’ should help you succeed in many courses and professional pursuits. Submitting your papers by Thursday November 16th will give me sufficient time to initially review many of the papers by December 5th, when we may have the opportunity to review writing issues associated with your papers. Thus please DO NOT ask for a deadline extension. I will not give extensions unless you are hospitalized. Late papers will have their grades lowered by one letter grade (e.g., an “A” paper become a “B” paper).

Choose a term paper topic by Tuesday September 28th 2023. Submit to me a 5-6 line typed description of your term paper topic by September 28th. I will then review your proposed topic to ensure that the term paper topic is appropriate. All term paper topics must be finalized and approved by me by Thursday October 12th 2023.

Your mini-term paper should be well thought out and clearly written. Unclear writing often reflects unclear thinking. To help you develop your professional writing skills, we will spend part of two class sessions during this semester reviewing writing tips and completing hands-on writing exercises that should improve your professional writing skills. You must submit two drafts of your paper along with your final ‘paper’, so please save your drafts!

**In-Class Projects (5% of course grade):**

Throughout the course I will ask you to develop research designs that test a variety of hypotheses related to human behavior. These projects will usually be completed in-class. These small projects are usually quite fun to work on, and the tasks are a bit like solving puzzles. We will work together to help solve each puzzle (that is, design a specific research study to help answer an interesting practical question). These puzzles and tasks will sometimes be completed in class but some tasks may require briefly working together outside of class either via Zoom, phone, or other means of communication (excluding mental telepathy!).
Extra Credit (Optional)

You can earn an extra credit by participating in four (4) hours of research conducted in the Psychology Department. Your participation will help you learn more about the research techniques and procedures that are used in behavioral science research. Three (3) percentage points will be added to one exam score for each hour of participation (maximum research credit: 12-percentage points). Three points will be deducted from an exam score for each hour of research that you sign-up to participate in but fail to attend without notifying the experimenter sufficiently in advance. All research credits must be completed by Dead Day, December 8th, 2023.

The attached sheet (“SONA System Policies – Fall 2023 Participant Guide”) provides instructions for identifying and signing-up for studies that are conducted in the Psychology Department this semester. If you are unable to participate in these research studies but still want to earn extra credit then you can write four (4) short research papers (each paper should be 2-pages in length, typed) based on research articles that I have selected for you. Each 2-page paper should briefly summarize the research question that was addressed in the article, the research methods that were employed in the study, and the main findings. Please write your name, student ID number, and course number (PSYC 3340) at the top of each paper that you submit. Each research paper requires about one hour of work. Three (3) percentage points will be added to one exam score for each paper submitted (maximum research credit: 12-percentage points). Please contact our Teaching Assistant if you want copies of the research articles. Request for articles must be made by Tuesday, December 5th, 2023. Your 2-page papers summarizing each article that you request must be submitted to our Teaching Assistant by Dead Day (Friday, December 8th, 2023).

Note: Students who complete 3 of the extra credit hours by mid-October (exact date to be determined soon) will be given an additional credit hour. This means that students can get credit for completing four hours of research by only completing 3 hours of research studies, as long as they complete 3 hours of research credit by the specified deadline. It is very important that students go into their SONA accounts no later than one week following these dates to confirm the additional credit was granted to them and to assign this credit to the appropriate class.

Strategies for Success in this Course

1. You can increase your likelihood of success in the course by identifying a ‘backup-buddy’; that is, someone who you can contact via email or phone to get the class notes for any day that you miss class due to illness or other reasons. The ‘backup-buddy’ strategy has been useful to students in past semesters. Each student in the class must identify a ‘backup buddy’ by the end of the 2nd week of classes. Please do not contact me for class notes if you miss a class. Instead, contact your backup-buddy. I will be happy to review with you any material that you want to discuss after you get the notes from your backup-buddy.

2. Many talented students stumble in Research Methods because they do not invest the time needed to succeed in the course. Remember this rule of thumb: For every three (3) credit hour course that you take during a regular (fall or spring) semester, you should spend 3 hours attending class each week and 7.5 hours studying outside of class! Thus you should plan to devote approximately 10.5 hours each week to mastering the material in this course. I have designed the course, the readings, and the assignments with the latter time commitment in mind.
3. You should read all of the assigned material, and you should read the material more than once. Most importantly, interact with the material!! Write comments in the margins of the chapters and articles, type up your notes, discuss the material with friends (or even enemies), or just close the door to your room and review the material aloud! Actively engaging material is absolutely critical for your success in any course. Passively reading a chapter or article just once is useless. At the university level, you are expected to master material in a non-trivial way. Hence the need to genuinely commit the type of time and energy described above in order to get the payoff that you desire. The material that we will read and review this ‘semester’ is very exciting and has numerous practical implications. So please make sure that you give yourself sufficient time to read and digest the material.

A NOTE REGARDING ACADEMIC HONESTY, INTEGRITY, AND DISHONESTY
Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as one's own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

GUIDANCE ON ARTIFICIAL INTELLIGENCE
The use of generative AI tools such as Chat GPT is NOT permitted in this course.

PLAGIARISM DETECTING SOFTWARE
Some of your course work and assessments may submitted to SafeAssign, a plagiarism detecting software. SafeAssign is used review assignment submissions for originality and to ensure that you properly attribute your sources.

TENTATIVE SCHEDULE

NOTE 1: Do not fall behind in your readings or your class attendance. If you have questions about the readings or class material then please come see me during office hours- I enjoy meeting with students!!
NOTE 2: November 3rd is the fall 2023 Drop/Withdrawal Deadline. Student-initiated drops are permitted after this date, but the student is not guaranteed a grade of W. The faculty member of record will issue a grade of either W or F.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
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<tbody>
<tr>
<td>Aug. 29</td>
<td>Introduction &amp; Fundamental Issues in Research Methods</td>
<td>Chapter 1 in Morling</td>
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<td>Aug. 31 &amp;</td>
<td>Fundamental Issues (con’t) &amp; In-Class Aphorism Task</td>
<td>Chapter 2 in Morling</td>
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<td>Sept 5</td>
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<td>Sept. 7</td>
<td>Simple Experiments I</td>
<td>Chapter 10 in Morling</td>
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<td>(pp. 273-286)</td>
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<td>Sept 12 &amp; 14</td>
<td>Puzzle #1: Testing the Validity of Dowsing:</td>
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<td>Videos &amp; In-Class Research Designs</td>
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<td>Sept. 19</td>
<td>Quiz #1 (all material assigned or discussed thus far)</td>
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<td>Puzzle #2: Facilitated Communication</td>
<td>Chapter 3 in Morling</td>
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<td>Videos &amp; In-class Research Designs</td>
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<td>Sept. 21</td>
<td>Puzzle #2 (con’t) Testing the Validity of Facilitated Communication</td>
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<td>Sept. 26</td>
<td>Puzzle #3: Clever Hans</td>
<td>Rosenthal: Clever Hans (pdf chapter)</td>
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<td>In-class Research Design</td>
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<td>Sept. 28 &amp;</td>
<td>Ethical Issues in Research:</td>
<td>Chapter 4 in Morling</td>
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<td>Oct. 3</td>
<td>Tuskegee, Milgram, and the Belmont Report</td>
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<td>Submit Mini-Term Paper Topic for discussion and approval</td>
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Oct. 5 & 10  Interesting Measurement Issues in Research  Chapter 5 in Morling

Oct. 12  Exam #1: All Material Assigned thus far
Submit Finalized Mini-Term Paper Topic

Oct. 17  Becoming a Better Research Consumer: Part I  Chapter 2 in Morling
Finding the Evidence

Oct. 19 & Oct. 24  Becoming a Better Research Consumer: Part II  Chapter 3 in Morling
Understanding Claims About Variables

Becoming a Better Research Consumer: Part III  Chapter 5 in Morling
Understanding Reliability, Validity, & Other Measurement Issues

Oct. 26  Becoming a Better Research Consumer: Part IV  Chapter 6 in Morling
Understanding Survey Research

Oct. 31  Quiz #2: All material assigned or reviewed since last quiz.

In-class writing Task:
(Finding Waldo in a Crowd of Sentences”)

Nov. 2  Research Samples & Research Populations  Chapter 7 in Morling
**Spring Drop/Withdrawal Deadline**
“Student-initiated drops are permitted after this date, but the student is not guaranteed a grade of W. The faculty member of record will issue a grade of either W or F.”

**Nov. 7 & 9**
Correlation, Causation, & Other Tricky Issues
Chapter 8 in Morling

**Nov. 14**
Quiz #3 (all material since last quiz, including writing exercises)
Correlation & Causation (con’t)

**Nov. 16**
“Simple Experiments II”
Chapter 10 (all pages) in Morling

MINI-TERM PAPERS DUE TODAY BY 11:59 PM!!!

**Nov. 21**
Those darn ‘confounding’ variables!
Chapter 11 in Morling

**Nov. 23**
NO CLASS: THANKSGIVING HOLIDAY

**Nov. 28**
Quasi-experiments (they’re all around you!)
Chapter 13 in Morling

**Nov. 30**
Quiz #4 (all material since last quiz)
Quasi-experiments (con’t) (they’re all around you!)
Chapter 13 in Morling
Dec. 5
What is the ‘replication crisis’ and am I in danger?!
Chapter 14 in Morling Science vs. Pseudoscience: Is the ‘theory’ of Intelligent Design a scientific theory? And who cares? Judge Jones (selected pages)

Dec. 7
Exam #2 (all material assigned & discussed this semester)

Dec. 12 (Tuesday)
Comprehensive Make-Up Exam
9:30 a.m. to 10:50 a.m. (This exam is only for students who missed a prior exam)