

**PSYC 5324.001: Applied Research Design  
Fall 2016**

**Instructor:** Dr. Lauren Coursey

**Office Number:** LS 302

**Lab:** LS 527

**Email Address:** lcoursey@uta.edu

**Faculty Profile:** <https://www.uta.edu/profiles/lauren-coursey>

**Office Hours:** TH 2:00 – 3:00, or by appointment

**Section Information:** PSYC 5324.001

**Time and Place of Class Meetings:** T/TH 12:30 – 1:50; LS 102

**Description of Course Content and Learning Outcomes:** The course offers an advanced survey of psychological methodology. The course will cover various methodologies including experimental, quasi-experimental, and field designs, among others. The course will address important design issues such as validity, generalizability, and ethics. Upon completion of the course, students should develop a general understanding of the strengths and weaknesses of various designs, the knowledge necessary to evaluate research programs, and an appreciation for the intricacies involved in complex, dynamic research settings.

**Required Textbook:**

Shadish, W. R., Campbell, D. T. & Cook, T. D. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin Company.

Hoyle, R. H., Harris, M. J. & Judd, C. H. *Research Methods in Social Relations*. Holt, Rinehart and Winston, 2002. *Seventh Edition*.

**Blackboard:** The use of Blackboard is required in this course. Make it a habit to check Blackboard regularly. We will use this space to post grades, announcements, additional readings, updates to the syllabus, and any other relevant content. Course grades will be posted on Blackboard only. You must have a valid UTA user ID to access Blackboard. Blackboard website:

<https://elearn.uta.edu/webapps/login/>

**Research Proposal:** Submit one research proposal for a novel project that involves a field or quasi-experimental design. Your paper should include a comprehensive literature review and a discussion of the novelty/importance of your proposed research. Thoroughly discuss your methodological design and data analysis plan including the setting, population, and data collection technique. Your discussion should focus on the potential validity and ethical issues (and ways future research could address these) you may face when conducting the proposed research. If relevant, discuss the ways in which your research will impact real-world I/O practices. Your paper should be 10-15 pages in length. You must also include all necessary materials to submit an IRB protocol (i.e., Form 1, informed consent document, debriefing statement, copy of questionnaire as it appears to participants, etc.).

**Proposal Presentation:** At the end of the semester, each student will present her/his research proposal to the class. In your presentation please discuss why you have chosen the particular research question. Discuss why your research is needed/important → Does your research address important gaps in the literature? Does your research have practical value? Summarize your methodological and data analysis plan. Thoroughly discuss the limitations of your plan. Your presentation should be approx. 10-15 minutes. Be prepared to answer questions regarding your research proposal.

**Real-Data Project:** You (and your group if you choose) will explore an actual dataset, perform analyses, and present your findings to the class. I will provide a few datasets for you to choose from or you can use a dataset of your own. The only requirement is that you present new (e.g., not previously submitted, graded, presented, published, etc.) analyses. You will perform analyses, write up your results, and present results in a nontechnical – broad audience -- format. Be prepared to present your results to a broad/general audience (audience with little/no expertise in statistics/methodology). \*You also have the option to present a real-data-collection project. You will collect data (compliant with all IRB regulations) and present your data collection methods and experiences to the class. Please note that you will need to have your protocol approved by the IRB. The data collection project should not also be your thesis/dissertation project. In order to access the SONA subject pool, your project must have relevance/implications beyond this course.

**Group Discussion:** You (and your group if you choose) will choose either a controversial issue or advanced design method to present to the class. You will present the main points of the issue (or method). Your job is to initiate and moderate a short class discussion pertaining to the different sides of the issue OR pros/cons of the research design. You should also discuss the ways in which the issue/method relates to broad topics discussed in lecture/main texts. Your classmates are expected to respond/participate in the discussion!

**General Participation:** You should come prepared to every class. You will be expected to contribute to class discussions and may be called upon to answer questions regarding any required readings. You are expected to participate in your classmates' group discussions!

**Attendance:** As graduate students you are expected to attend every class. Students who miss a class for any reason or miss a portion of a class due to tardiness or early departure will still be held accountable for all of the material that is covered during those sessions, including material covered in lecture that is not in the book/readings.

**Grading:**

<b>Proposal</b>	<b>30%</b>
<b>Real-Data Project</b>	<b>25%</b>
<b>Group Discussion</b>	<b>25%</b>
<b>Proposal Presentation</b>	<b>10%</b>
<b>General Participation</b>	<b>10%</b>

If you are having difficulty with the class material, or believe you are doing poorly, please talk to me about your situation earlier rather than later. Do not wait until after the final to discuss your GPA, exam grades, or if you have a dispute with a grade you were given. It is your responsibility to verify with me that the percentages that you think you've earned are accurate. If you are near the border of a grade boundary (e.g., **between** a B and an A), this is especially important. Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see "Student Support Services," below.

**Expectations for Out-of-Class Study:** A general rule of thumb is this: for every credit hour earned, a student should spend 3 hours per week working outside of class. Hence, a 3-credit course might have a minimum expectation of 9 hours of reading, study, etc.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering.

**Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

**Disability Accommodations:** UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364.  
**Counseling and Psychological Services, (CAPS)** [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX:** *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos). For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).*

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents’ Rule 50101*, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

I will only communicate with you via e-mail using your UT-Arlington e-mail account. Messages relevant to the class will be posted on Blackboard. Do not e-mail or call me to ask what materials

will be or were missed in class. I strongly encourage you to get the e-mail and telephone number of at least one other person in class. **Do not e-mail asking to be bumped up to the next letter grade.**

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, located to your right. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>

### Course Schedule

DATE	Day	IN-CLASS TOPIC	Readings/Assn.
AUG 25	TH	SYLLABUS	
AUG 30	T	INTRO	Shadish 1 Hoyle 1
SEP 1	TH	LITERATURE REVIEWS & ARCHIVAL DATA	Simonton et al.
SEP 6	T	META	Rind et al.
SEP 8	TH	PARTICIPANT RIGHTS AND IRB	Hoyle 3 *Osborn
SEP 13	T	PARTICIPANT RIGHTS AND IRB	Hertwig & Ortmann Buhrmester & Gosling

SEP 15	TH	ETHICS	Kerr
SEP 20	T	VALIDITY	Shadish 2& 3
SEP 22	TH	VALIDITY	Simons et al. Graham
SEP 27	T	EXPERIMENTAL	Hoyle 11-12 Shadish 8 & 10
SEP 29	TH	EXPERIMENTAL	Ranehill et al. Carney et al.
OCT 4	T	SAMPLING	Shadish 11 Hoyle 8 - 10 *Cochran et al. *Maxwell et al.
OCT 6	TH	QUALITATIVE & SURVEY	Hoyle 15 – 16
OCT 11	T	SURVEY CONSTRUCTION	Hoyle 6 Baker Podsakoff et al.
OCT 13	TH	FIELD RESEARCH	Harrison & List *King et al. Milkman et al.
OCT 18	T	TBD**	*Klement
OCT 20	TH	REAL DATA PROJECT	
OCT 25	T	PRESENTATIONS	
OCT 27	TH	PRESENTATIONS	
NOV 1	T	TBD**	
NOV 3	TH	QUASI-DESIGNS	Shadish 4 Campbell et al. Grant & Wall
NOV 8	T	QUASI-DESIGNS	Shadish 5 *Austin
NOV 10	TH	TIME-SERIES & RDD	Shadish 6 & 7
NOV 15	T	CODING AND IRR**	*Field *Shrout
NOV 17	TH	GENERALIZED INFERENCE**	Shadish 11 Shadish 12
NOV 22	T	GRANTS**	
NOV 24	TH	<b>THANKSGIVING</b>	
NOV 29	T	PRESENTATIONS	
DEC 1	TH	PRESENTATIONS	
DEC 6	T	PRESENTATIONS	
		<b>FINALS WEEK</b>	

\*Recommended Articles

## Readings:

Austin, P. C. (2011). An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivariate Behavioral Research*, 46(3), 399-424. doi:10.1080/00273171.2011.568786

Baker, M.J. (2003). Data collection-Questionnaire design. *The Marketing Review*. 3, 343-370.

Barratt, M. J., & Lenton, S. (2015). Representativeness of online purposive sampling with Australian cannabis cultivators. *International Journal of Drug Policy*, 26(3), 323-326. doi:10.1016/j.drugpo.2014.10.007

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical turk: A new course of inexpensive, yet high-quality data? *Perspectives on Psychological Science*, 6, 3-5. doi:10.1177/1745691610393980

Campbell, D. T., Stanley, J. C., & Gage, N. L. (1963). *Experimental and quasi-experimental designs for research* (No. 04; Q175, C3.). Boston: Houghton Mifflin.

Carney, D. R., Cuddy, A. C., & Yap, A. J. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science*, 21(10), 1363-1368. doi:10.1177/0956797610383437

Cochran, W. G., Mosteller, F., & Tukey, J. W. (1954). Principles of sampling. *Journal of the American Statistical Association*, 49(13), 35. doi:10.2307/2281032

Field, A. P. (2005). Intraclass correlation. *Wiley StatsRef: Statistics Reference Online*.

Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review Of Psychology*, 60, 549-576. doi:10.1146/annurev.psych.58.110405.085530

Grant, A. M., & Wall, T. D. (2009). The neglected science and art of quasi-experimentation: Why-to, when-to, and how-to advice for organizational researchers. *Organizational Research Methods*, 12(4), 653-686. doi:10.1177/1094428108320737

Harrison, G.W. & List, J.A. (2004). Field experiments. *Journal of Economic Literature*. 42(4), 1009-1055.

Hertwig, R., & Ortmann, A. (2008). Deception in experiments: Revisiting the arguments in its defense. *Ethics & Behavior*, 18, 59-92. doi:10.1080/10508420701712990

Kerr, N. L. (1998). HARKing: Hypothesizing after the results are known. *Personality and Social Psychology Review*, 2, 196-217. doi:10.1207/s15327957pspr0203\_4

King, E. B., Hebl, M. R., Morgan, W. B., & Ahmad, A. S. (2013). Field experiments on sensitive organizational topics. *Organizational Research Methods*, 16(4), 501-521. doi:10.1177/1094428112462608

Klement, C. (2015). Comparing the effects of community service and imprisonment on reconviction: Results from a quasi-experimental Danish study. *Journal of Experimental Criminology*, 11(2), 237-261. doi:10.1007/s11292-015-9231-1

Milkman, K. L., Akinola, M., & Chugh, D. (2015). What Happens Before? A Field Experiment Exploring How Pay and Representation Differentially Shape Bias on the Pathway Into Organizations. *Journal Of Applied Psychology*, doi:10.1037/apl0000022

Maxwell, S. E., Kelley, K., Rausch, J. R. (2008). Sample size planning for statistical power and accuracy in parameter estimation. *Annual Review of Psychology*, 59, 537-563. doi: 10.1146/annurev.psych.59.103006093735

May, D. R., Luth, M. T., & Schworer, C. E. (2014). The influence of business ethics education on moral efficacy, moral meaningfulness, and moral courage: A quasi-experimental study. *Journal of Business Ethics*, 124(1), 67-80. doi:10.1007/s10551-013-1860-6

Osborn, L. (2002). Consuming Rituals of the Suburban Tribe. *The New York Times*. Retrieved from: <http://www.nytimes.com/2002/01/13/magazine/13ANTHRO.html?pagewanted=1>

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569. doi:10.1146/annurev-psych-120710-100452

Ranehill, E., Dreber, A., Johannesson, M., Leiberg, S., Sul, S., & Weber, R. A. (2015). Assessing the robustness of power posing: No effect on hormones and risk tolerance in a large sample of men and women. *Psychological Science*, 26(5), 653-656. doi:10.1177/0956797614553946

Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. *Psychological Bulletin*, 124(1), 22-53. doi:10.1037/0033-2909.124.1.22

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420-428. doi:10.1037/0033-2909.86.2.420

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22, 1359-1366. doi:10.1177/0956797611417632

Simonton, D. K. (2006). Presidential IQ, Openness, Intellectual Brilliance, and Leadership: Estimates and Correlations for 42 U.S. Chief Executives. *Political Psychology*, 27(4), 511-526. doi:10.1111/j.1467-9221.2006.00524.x