Instructor: Dr. Wes Hutchinson  
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Class Time/Location: Tuesday, 3:00 pm - 6:00 pm, 741 JMHH

Office Hours: by appointment.

Reading Materials:

Texts:  


Articles: Journal articles will be distributed electronically via Canvas when possible or via hard copy.
Course Description and Objectives:

This course provides an introduction to the fundamental methodological issues that arise in behavioral research: research design, data collection, and data analysis. Illustrative examples are drawn from the behavioral sciences with a focus on the behavior of consumers and managers, but also include other areas (depending on student interests). The general approach taken in this course emphasizes the following perspectives.

1. **Design, data collection, and data analysis are integrative and simultaneous aspects of research** (not independent and sequential). There is a focus on completely mastering the essentials of these components of research, and learning how they relate to more advanced topics.

2. **The separation of "quantitative" and "behavioral" approaches is unnecessary.** These approaches shared a common interest in rigorously testing theory-based causal hypotheses about human behavior.

3. **The current focus in behavioral research on statistical "significance" (i.e., rejecting a null hypothesis of some sort) is misguided and counterproductive.** Rather, research should be designed to validly measure important phenomena and use appropriate statistical models to estimate effect sizes for the factors that might (or might not) cause these phenomena.

4. **Consideration of 1, 2, and 3 leads to a focus on deeply understanding the general linear model of observed variables,** and this model unifies the most widely used types of data analysis (e.g., OLS regression, ANOVA, factor analysis, SEM, repeated measures, time series, and hierarchical linear models).

Specific topics that are covered include: the development of research ideas; the nature of explanation; statistical power, effects size, and significance tests; observational, experimental, and quasi-experimental designs; data and measurement; multi-causal explanations and multi-factor models; between-subjects and within-subjects experimental manipulations and data analysis.

Although grounded in theory, this course emphasizes pragmatic and widely used research methods with a hands-on approach. **Put more simply, this course aims to provide the essential foundations for publishing research in top academic journals.**
Grading:

20%   Class Participation (including assignments)
20%   Take-Home Midterm Exam
20%   Meta-Analysis Presentation
40%   Take-Home Cumulative Final Exam

Class Participation:

In addition to participating in class discussions, on most weeks one or two students will be assigned/volunteer to bring in a short example or problem from their own research or a literature of interest to them that is related to the topics covered the previous week. Also, there will be occasional homework assignments.

Take-Home Exams:

At two points in the course (TBA), open-book, open-note, take-home exams will be assigned. The questions on these exams will designed to be similar questions on the qualifying exam for marketing students. The final exam will be cumulative.

Meta-Analysis Presentation:

Students will choose a research problem of interest to them for which a reasonable number of published papers exist examining the same empirical hypothesis. From a subset of those papers, students will construct a meta-analytic data base with at least 20 observations. Details will be provided in class, but the general idea is that in most areas the same empirical hypothesis is tested in a variety of ways--often within the same paper via multiple studies, but certainly across papers by different researchers. Frequently, the results also vary across studies (e.g., with respect to statistical significance, effect size, and even the direction of the effect). The data step in a meta-analysis compiles these results, codes the ways in which the studies differed in research method (e.g., dependent measures, sample, experimental design, data analysis, etc.), and then analyzes the compiled database in an attempt to explain the aggregate results and established what can be generalized beyond the specifics of each study considered separately. The deliverable for this assignment is the data base and an in-class presentation. It should be thought of as the first phase of a meta-analysis (not a finished paper ready for submission to a journal, although this might be the eventual result).
### Schedule of Classes:

**Topics in Research Methods**  
(MKTG 967; Professor Wes Hutchinson)  
* indicates an optional reading

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<tr>
<th>Week</th>
<th>Topics</th>
<th>R&amp;R</th>
<th>CCWA</th>
<th>Articles</th>
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| **1** | Sept 2 | **Introduction & overview:** Warm-up questions; Overview of research methods.  
**The review process:** Journal selection; Strategies for communicating your contribution; responding to editors and reviewers. | 1 | 1 | Hutchinson, Meyer, & Brenner (2013, plus review process docs) |
| **2** | Sept 9 | **The nature of explanation:** Correlation and causation; Statistical power and effect size; internal, external, and construct validity; reliability (stability) and validity (bias). | 2, 4, 11, 13 | 2 | Cohen (1994); Kline (2011); Brewer (2000); |
| **3** | Sept 16 | **The nature of explanation (continued):** Bayesian thinking about research design and threats to validity; Signal Detection Theory; "Structural models" in economics and psychology; how to read model equations as causal theories. | | | Brinberg, Lynch, and Sawyer (1992); Moorthy 1993; Chintagunta et al. 2006; Erdem & Keane (1996); |
| **4** | Sept 23 | **Discussion:** Student mini-presentations of published meta-analyses.  
**Meta-analysis Preview:** effect sizes, estimated parameters, explaining variation in effect size, problems & solutions | 21 | | Rosenthal & DiMatteo (2001); see Meta-Analyses folder on Canvas. |
| **5** | Sept 30 | **Data & measurement:** Choosing what to explain and what to measure; representational vs. psychometric, behavioral vs. self-reported, outcome vs. process, obtrusive vs. unobtrusive measures; scale types; range-frequency theory; Simpson's paradox; | 3, 5, 6, 9, 10 | 4.1, 4.2, 11 | John & Benet-Martinez (2000); Sears (1986); Simpson's Paradox (2003); Weaver & Schwartz (2008); Cooke et al. (2004)*; Aquino & Reed (2002)* |
| **6** | Oct 7 | **Data & measurement:** Choosing what to explain and what to measure; statistical power & sample size; principal components analysis (PCA) & K-means cluster analysis; multiple DVs and family-wise error | 12, 20 | 3.7, 5.6 | FACTOR; FASTCLUS |
| **7** | Oct 14 | **Multi-causal explanations and multi-factor models:** Multiple regression models (OLS) & Structural equation models (SEM); standardized & unstandardized coefficients; correlations among IVs, SEs for coefficients (Type III SS), & multi-collinearity; structural equation modeling & confirmatory factor analysis | 8 (4) | 3, 4, 5, 10 | Iacobucci 2009; Iacobucci 2010*; Bagozzi 2010*; Chandon et al (2009)* |
| **8** | Oct 21 | **Multi-causal explanations and multi-factor models:** Structural equation models (SEM); path analysis; measurement error; mediation; polynomials functions, interactions, & moderation REVIEW | | | Birnbaum & Mellers (1979ab); Moreland & Zajonc (1977, 1979); Irwin & McClelland (2001); Mackinnon et al (2007); Zhao, Lynch, & Chen (2010)  
Optional: Baron & Kenny (1986); Preacher & Hayes (2008); Preacher & Kelley (2011); Take-Home Midterm Exam distributed, due on October 28. |
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<th>Date</th>
<th>Topic</th>
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<tr>
<td>Oct 28</td>
<td><strong>Experimental and Quasi-Experimental Research Design</strong>; theoretical and practical issues; representative design; between vs. within subject designs</td>
<td>7</td>
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<td>Nov 4</td>
<td><strong>Between subject experiments: ANOVA for factorial designs</strong>; covariates and ANCOVA; F ratios, MS, &amp; SS; Type III SS (SEs for coefficients); ANOVA tables; contrasts; least squares means</td>
<td>14, 15, 16, 17 (8)</td>
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<td>Nov 11</td>
<td><strong>Within subject experiments: Repeated measures for fractional factorial designs</strong> (including Latin squares); fixed vs. random effects; time series; method of moments vs. maximum likelihood estimation</td>
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<td>Nov 18</td>
<td><strong>Within subject experiments (continued)</strong></td>
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<td>Nov 25</td>
<td><strong>Thanksgiving Break</strong> (Thurs/Fri schedule on Tues/Wed)</td>
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<td>Dec 2</td>
<td><strong>Special Topics; Behavioral Game Theory</strong></td>
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<td>Dec 9</td>
<td><strong>Meta-analysis Presentations</strong></td>
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Reading List

(not including R&R and CCW&A)

**Required**


Hutchinson, Meyer, and Brenner (2013), First submission, decision letter and reviews.


Hutchinson, J. Wesley (2003),"Simpson's Paradox." Teaching Note.

Iaobucci, Dawn (2009), "Everything you always wanted to know about SEM (structural equations modeling) but were afraid to ask," Journal of Consumer Psychology, 19, 673–680.


Optional


