

Clinical Research Methods
Spring 2016 (PSYC 6/71685)
T/Th 2:15-3:30
Rm 304 Kent Hall

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Course Description:

This course will cover issues in measurement, sampling, design, and analysis pertinent to research in clinical psychology. The primary goals of the course are 1) to improve your critical acumen in consuming research performed by others and 2) to assist you in formulating and bringing to fruition your own research ideas. The course consists of classes addressing basic issues in clinical research (e.g., philosophy of science, forms of clinical inquiry, sampling and measurement, threats to methodological rigor, research design and interpretation, replication, and ethics) as well as applications to your own Thesis research question.

Learning Outcomes:

By the end of this course, it is expected that students will be able to:

- Demonstrate knowledge of research methods and principles, including but not limited to hypothesis generation, study design, threats to validity, and statistical power/effect size;
- Demonstrate knowledge and skill of how to review and critique research;
- Apply knowledge gained to produce methodologically sound study prospectus.

In-class activities that support outcomes: Activities may include class/group discussion, lecture, demonstrations, oral presentations, exams, utilizing statistical programs

Out-of-class activities that support outcomes: Activities may include textbook readings, homework assignments, readings from scholarly books and journals, written papers, and producing a study prospectus

Class Expectations:

Your primary work in this class is to read and engage with the course material during class. This is a reading intensive course taught largely in the form of a seminar. There are some lectures but most learning will occur during class discussions. As such, I expect students to come to class and to be prepared to contribute, having completed the required readings and/or assignments. As part of this, I also expect that students will behave like professionals, coming to class on time and behaving accordingly (e.g., silencing phones, not engaging in inappropriate/irrelevant online activities). In addition, from time to time there will be other activities that are in the service of your development as a scientist that are required but not graded (e.g., CITI human subjects training). The expectation is that you will complete these activities willingly and on time as they are in the service of your broader research training.

Grades will be based on the following:

Class Participation (40%): You are required to participate in class discussions. In addition, at the beginning of each class, you will be required to submit two brief, typed discussion questions or comments on the required readings. I expect these questions/comments to reflect your thinking on the issues at hand and this will constitute half of your class participation grade. The rest of your participation grade is based on your actual participation in class discussion over the course of the semester. This includes informal presentations of readings or discussion of your research project development.

Research Design Papers (60%): You are required to complete two, 6-12 page papers in which you apply your thesis question in 2 different research designs. One paper must employ a strictly experimental design (involving random assignment) and one must employ a strictly observational design. You will have an opportunity to discuss in class your process in operationalizing your question every step of the way and will receive feedback from me on one draft of each of the final papers. Each paper must reflect your knowledge of key issues in research design, including issues relating to sampling, measurement, validity as well as how statistical methods would be applied. The paper will need to include the following sections listed below, formatted in APA style with a reference section (not included in page count). In addition, all drafts and final papers must be submitted online via Blackboard in word format. NO hard copies nor emailed copies will be accepted.

Research Design Paper, Required Sections:

- 1) **Statement of the research question and review of relevant research.** This includes prior *relevant research on your topic* using the specific methods you have selected.
- 2) **Design Considerations and Justification.** This includes a clear description and justification of the design selected and a discussion of the considerations that went into your choices.
- 3) **Statement of Hypotheses and Power analysis.** This includes precise statement of any a-priori predictions (as well as justification from prior research for those predictions) and the use of appropriate power analytical software freely available or in the grad computer lab for your particular research design and question.
- 4) **Detailed description of the Sample.** This includes justification for the sample, the sample composition, and method of sampling and recruitment, as well as any practical considerations.
- 5) **Detailed description of Measures.** This includes a description of each measurement tool, including evidence of reliability, validity and applicability to your sample and research question. If measures are scored or cleaned in some way – this must be explained.
- 6) **Detailed description of the Procedures.** This should include sufficient detail to facilitate replication by another researcher
- 7) **Description of the Analytic Strategy.** This should include a description of the analytic techniques used to test all a-priori hypotheses. Please include corrections for family-wise error or multiple comparisons.
- 8) **Description of Limitations.** This should include a description of threats to validity, reliability, generalization and alternative explanations, as well as, relevant future directions.

*****PLEASE NOTE:** Students may not work together outside of class to complete these papers. Any evidence that suggests that students are completing this work together will result in an automatic drop of the final paper grade by 50% for all involved students.

Course Readings:

This course is reading intensive and relies heavily on two required texts (listed below) as well as empirical articles and/or chapters from various other sources. All readings not in the required texts will be posted on Blackboard well in advance of their use on the syllabus.

Required Texts (all are available for online purchase or in the KSU bookstore)

- Kazdin, A.E. (2003). **Research Design in Clinical Psychology, 4th Edition**. Boston: Allyn & Bacon.
- Shadish, W.R., Cook, T.D. & Campbell, D.T. (2002). **Experimental and Quasi-Experimental Designs for Generalized Causal Inference**. Belmont, CA: Wadsworth, Cengage Learning.

Calendar of Topics, Readings and Assignments	
Please Note: Should you miss a class, you will be responsible for all material covered in class and for any announcements made in class	
T 1/19/16	Introduction, Syllabus Review & Discussion **To do: Meet with your advisor to define your Thesis research
Th 1/21/16	Foundational Issues in Research Readings: SC & C Chapt. 1/ Kazdin Chapt. 1 (<i>pdfs of these chapters will be available on blackboard but future readings from the required texts will not</i>)
T 1/26/16	Defining the Research Question I Readings: Gray & Wegner, 2013; McGuire, 1997
Th 1/28/16	Defining the Research Question II Readings: Kazdin, Chapt. 5 **Due: Turn in draft of your Thesis research question for discussion in class
T 2/2/16	Review Validity Readings: SC & C Chapters 2-3 ** To do: Group presentation of reading
Th 2/4/16	Reliability & Measurement Issues Readings: Podsakoff, et al 2012; Kazdin, p. 82-100; John & Benet-Martinez, 2000
T 2/9/16	More Measurement Issues Readings: Kazdin C. 13; Chan, 2009
Th 2/11/16	Samples & Sampling Readings: Kazdin, p. 148-169, 101-108; Highhouse & Gillepsie, 2009
T 2/16/16	Power Readings: Cohen, 1992; Maxwell, 2004; Aguinias & Harden, 2009 p.269-277 **Due: Turn in CITI Training completion certificate

Th 2/18/16	Ethical Issues I <i>Readings:</i> Kazdin, p.497-527; SC& C p. 280-291
T 2/23/16	Ethical Issues II <i>Readings:</i> Simmons et al, 2011; Kerr, 1998
Th 2/25/16	Randomized Experimental Designs I <i>Readings:</i> SC &C, Chapt. 8 & p. 488-498 **To do: Present assigned design, explain risks v benefits.
T 3/1/16	Randomized Experimental Designs II <i>Readings:</i> Kazdin, Chapt 8; *Hayes et al, 2010; *Lerner et al 2003; *Harris et al, 2009; *Moberg & Curtain, 2009; *Culver et al, 2015 **To do: Present one of the * articles.
Th 3/3/16	Randomized Experimental Designs III <i>Readings:</i> Chambless & Hollon, 1998; Kazdin, p. 409-422; CONSORT; *Shallcross et al, 2015; *Michalak et al, 2015 **To do: Present one of the * articles.
T 3/8/16	Quasi Experimental Designs <i>Readings:</i> SC&C, Chapt 4 & 5 to p. 161 ** To do: Present assigned designs, explain risks v benefits
Th 3/10/16	Quasi Experimental Designs - Within-Subject Manipulations <i>Readings:</i> *Bonanno et al, 2004; *Clerkin et al, 2014; *Kovacs et al, 2015; *Buss et al, 2004. **To do: Present one of the * articles.
T 3/15/16	Experimental Designs Wrap-up
Th 3/17/16	Observational Designs – An Introduction <i>Readings:</i> Kazdin, Chapt. 9
**SPRING BREAK **	
T 3/29/16	Observational Designs – Longitudinal Research <i>Readings:</i> Menard, 2012 **Due: Draft of experimental application of your thesis research
Th 3/31/16	Observational Designs – Longitudinal Research II <i>Readings:</i> Galatzer-Levy et al, 2014; Kok et al, 2015; Kendall et al, 2015; Kendall et al, 2004
T 4/5/16	Observational Designs – Diary/Experience Sampling <i>Readings:</i> Bolger, Davis & Rafaeli, 2003; Trull et al, 2012
Th 4/7/16	Observational Designs – Combination designs <i>Readings:</i> Ram et al, 2014

T 4/12/16	Observational Designs Wrap-Up
Th 4/14/16	Replication <i>Readings:</i> Schmidt, 2009; OSC Replication Study 2015; Nosek et al, 2015 Guidelines
T 4/19/16	Multiple-Study Inferences <i>Readings:</i> SC & C, pages 417-435; Ost, 2008 **Due: Draft of observational application of your thesis research
Th 4/21/16	External Validity I <i>Readings:</i> SC & C 348-373; 466-473; Mook, 1983
T 4/26/16	External Validity II <i>Readings:</i> Cortina & Landis, 2009 Pick 1 of the next 4: Abramowitz et al, 2014, Cox et al 1999; Henrich et al, 2010; Case & Smith, 2000
Th 4/28/16	More Ethics.... <i>Readings:</i> Kazdin p. 527-544; Butts and Ng, 2009; Crocker & Cooper, 2011; Wicherts, 2011; Enserink, 2012
T 5/3/16	Manuscript Writing/ Publication Process. <i>Readings:</i> Kazdin Chapt. 18; Roediger 2007a,b
Th 5/5/16	Wrap up & Discussion
Final Papers Due via Blackboard: Friday 5/6/16 at 5pm	

Cheating and Plagiarism

According to University Policy 3342-3-01.8, "Cheating and plagiarism constitute fraudulent misrepresentation for which no credit can be given and for which appropriate sanctions are warranted and will be applied." Cheating involves the intentional misrepresentation of your academic work in such a way that you receive undeserved credit or the cooperation with someone else in the misrepresentation of academic work. **Plagiarism involves presenting the ideas or words of someone else as your own, or presenting ideas or work from another source as your own without giving credit to the original source of the material. None of these will be tolerated in this class.** If you are uncertain about what constitutes plagiarism, there are many resources available to you through the KSU library (see: <http://libguides.library.kent.edu/plagiarism/resources>) or on various websites (e.g. an excellent site with examples: <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>).

*****PLEASE NOTE: It is the graduate student's responsibility to ensure that no plagiarism occurs. Any instances will be taken very seriously and responded to according to university policy:**

<https://www.kent.edu/policyreg/administrative-policy-regarding-student-cheating-and-plagiarism>

Students with Disabilities

University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact me at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for such accommodations through Student Accessibility Services (contact 330-672-3391 or visit <http://www.kent.edu/sas> for more information on registration procedures).