Course	Dyadic Data Analysis, HCS 7310.001
Professor	Robert A. Ackerman, Ph.D.
Term	Fall 2017
Meetings	JO 3.209, Mondays from 10:00am-12:45pm

Dr. Ackerman's Contact Information

Office Phone: (972) 883-2346
Office Location: Green Hall, Room 4.126
Email: raa110030@utdallas.edu
Office Hours: Thursday from 2:00pm to 4:00pm (or by appointment via email)

General Course Information

Restrictions

Students are assumed to have a strong background in Multiple Regression and a passing familiarity with SPSS.

Course Description

This course provides an introduction to research methods and statistical analyses appropriate for the study of dyadic data. Topics include: Basic definitions and data structures, the measurement of non-independence, an introduction to multilevel modeling, an introduction to structural equation modeling, the actor-partner interdependence model for distinguishable and indistinguishable dyads, the social relations model for distinguishable and indistinguishable members, longitudinal applications of the standard dyadic design, and the one-with-many design.

Note about proprietary data: Data sets used in this class are for educational purposes only. These data sets may not be used beyond the context of this course.

Learning Objectives

Students will demonstrate:

1. Knowledge of basic topics within dyadic data analysis, including distinguishability, types of dyadic designs and data structures, and non-independence
2. Introductory knowledge of Multilevel Modeling (MLM) and Structural Equation Modeling (SEM)
3. An ability to restructure their data into a format that is appropriate for the method being used
4. An ability to conduct basic dyadic data analyses within MLM and/or SEM, including the Actor-Partner Interdependence Model and the Social Relations Model
5. An ability to write up different forms of dyadic data analyses in APA style

Required Text

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic Data Analysis.* Guilford Press.
ISBN: 1572309865

Text website: http://davidakenny.net/kkc/kkc.htm

Additional Readings

I will be providing you with all additional required readings for the course.

Computer

Because the course will include a large data analysis component, students must have access to SPSS (with the MIXED models add-on), Mplus, and R. If you want to purchase SPSS for your own computer, you can buy it from the UTD tech store. Be sure to buy SPSS Statistics Premium Graduate Pack for version 21 or higher (it should cost you around $100-$120). If you do not want to buy your own copy of SPSS, it is installed on several UTD computer labs (e.g., GR 3.206 Statistics Lab). Moreover, you can download a free demo of Mplus from the Mplus website, and R, of course, is free.

Course Requirements

Data Analysis Assignments. Homework will be assigned in class. Assignments should be completed individually. Also, examples of write-ups discussed in class are NOT TO BE USED as templates for the assignments—this is plagiarism and will not be tolerated. In most cases you will have one week to complete each assignment (I will note due dates in class for each assignment.) Completed homework will be collected in class and will be scored out of a possible 10 points. One point will be deducted for each day that an assignment is late (assignments will not be accepted after 5 days). Scores on these assignments will count for 50% of your final grade.

Research Paper. You will be required to write an APA-style manuscript that uses dyadic data to address a substantive research question(s) of your choosing. To maximize the usefulness of this activity, one of your first assignments will be to find a dataset in your research area with dyadic data. Note that dyadic data come in many forms (e.g., family relationships, romantic relationships, managers with employees). Although I encourage you to find data that are relevant to your field, I can also point you towards publicly available data sets if you are unable to find dyadic data for the research paper. Given the nature of this course, I will expect the Method and Results sections of the research paper to be thorough. In contrast, the Introduction and Discussion sections should be 1 page each. Research papers will be due by 10:00am on December 4. Detailed instructions for what I expect in your research paper will be forthcoming and uploaded onto e-learning. The research paper will count for 40% of your final grade.

Research Paper Updates. To ensure timely completion of the final research paper for the course, you will be required to provide two updates regarding your research paper throughout the semester. The first update will be due on September 11 and will count for 5% of your final grade. For this first update, you will be asked to provide information regarding your research question(s), the data set being used, and the type of dyadic design. The second update will be due on October 23 and will count for 5% of your final grade. For this second update, you will be asked to provide a description of the analytic approach you plan to use to address your research question(s) along with a detailed outline of the paper. Detailed instructions for these updates will be forthcoming and uploaded onto e-learning.

Grading Criteria

The following scheme will be used to provide you with a grade:

Percentage of Total Points Earned	Letter Grade
93-100%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
63-66%	D
60-62%	D-
Below 60%	F

Materials for this course were adapted from a course taught by Dr. Deborah A. Kashy. I also adapted the research paper assignment from a course taught by Dr. Jackie Nelson.

Instructor Expectations

Because the material in this course is more or less cumulative, it is imperative that you stay alert during class and keep up with the readings and assignments. It is easy to fall behind, but very difficult to catch up. I also expect you all to be respectful towards one another.

Late Work

One point will be deducted for each day that an assignment is late (assignments will not be accepted after 5 days).

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

Course Schedule

Note: This schedule is tentative and subject to change. Changes will be noted in class. Note also that the reading assignment should be completed before class on the day it is assigned. KKC = Kenny, Kashy, & Cook (2006).

Date	Topic	Assignment
Aug 21	Introduction to course Basic definitions and Data structures	KKC: Chapter 1 Ledermann, T., & Kenny, D. A. (2015). A toolbox with programs to restructure and describe dyadic data. *Journal of Social and Personal Relationships, 32,* 997-1011.
Aug 28	Measures of Non-Independence	KKC: Chapter 2 Alferes, V. R., & Kenny, D. A. (2009). SPSS programs for the measurement of nonindependence in standard dyadic designs. *Behavior Research Methods, 41,* 47-54.
Sept 4	**NO CLASS: LABOR DAY**	
Sept 11	Introduction to Multilevel Modeling	Nezlek, J. B. (2012). Multilevel modeling for psychologists. *APA handbook of research methods in psychology, 3,* 219-241. Hoffman, L., & Rovine, M. J. (2007). Multilevel models for the experimental psychologist: Foundations and illustrative examples. *Behavior Research Methods, 39,* 101-117. **Project Update #1 Due**
Sept 18	Introduction to Multilevel Modeling (continued)	KKC: Chapter 4 Kenny, D. A., Bolger, N., & Kashy, D. A. (2001). Traditional methods of Estimating multilevel models. In D. S. Moskowitz and S. L. Hershberger (Eds.) *Modeling intraindividual variability with repeated measures data: Methods and applications*. Erlbaum.
Sept 25	Multilevel Modeling for Dyadic Data and the APIM	KKC: pages 144-168 of Chapter 7 (feel free to skim the pooled-regression method) Pages 335-343 of: Kenny, D. A., & Kashy, D. A. (2010). Dyadic Data Analysis Using Multilevel Modeling. In *The Handbook of Advanced Multilevel Analysis*, J. Hox and J. K. Roberts, (Eds.). Taylor & Francis: London.

Date	Topic	Assignment
Oct 2	Distinguishable APIM and Interactions	KKC: pages 173-178 of Chapter 7 Pages 343 to 348 of: Kenny, D. A., & Kashy, D. A. (2010). Dyadic Data Analysis Using Multilevel Modeling. In *The Handbook of Advanced Multilevel Analysis*, J. Hox and J. K. Roberts, (Eds.). Taylor & Francis: London. Read up to p. 11 of: Kashy, D. A. & Donnellan, M. B. (In Press). Conceptual and Methodological Issues in the Analysis of Data from Dyads and Groups. In Kay Deaux & Mark Snyder (Eds.) *The Oxford Handbook of Personality and Social Psychology*. Garcia, R. L., Kenny, D. A., & Ledermann, T. (2015). Moderation in the actor-partner interdependence model. *Personal Relationships, 22*, 8-29.
Oct 9	Introduction to Structural Equation Modeling Structural Equation Modeling for the APIM	KKC: Chapter 5 Peugh, J. L., DiLillo, D., & Panuzio, J. (2013). Analyzing mixed-dyadic data using Structural Equation Models. *Structural Equation Modeling: A Multidisciplinary Journal, 20*, 314-337. (feel free to skip over the material on longitudinal designs) Kenny, D. A., & Ledermann, T. (2010). Detecting, measuring, and testing dyadic patterns in the actor-partner interdependence model. *Journal of Family Psychology, 24*, 359-366. Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling, 18*, 595-612.
Oct 16	Begin Over-time dyadic data analysis	KKC: Chapter 13 Nestler, S., Grimm, K. J., & Schonbrodt, F. D. (2015). The social consequences and mechanisms of personality: How to analyse longitudinal data from individual, dyadic, round-robin and network designs. *European Journal of Personality, 29*, 272-295.
Oct 23	Dyadic Growth Models, Lagged Models, and the Overtime APIM	Kashy, D. A., & Donnellan, M. B. (2008). Comparing MLM and SEM Approaches to Analyzing Developmental Dyadic Data: Growth Curve Models of Hostility in Families. In N. A. Card & T. D. Little (Eds.), *Analysis of Interdependent Developmental Data*. Lawrence Erlbaum Associates. Laurenceau, J. P., & Bolger, N. (2012). Analyzing diary and intensive longitudinal data from dyads. *Handbook of research methods for studying daily life*, 407-422. **Project Update #2 Due**
Oct 30	Finish over-time dyadic data analysis	Kashy, D. A. & Donnellan, M. B. (In Press). Conceptual and Methodological Issues in the Analysis of Data from Dyads and Groups. In Kay Deaux & Mark Snyder (Eds.) *The Oxford Handbook of Personality and Social Psychology*. (read from p. 11)

Date	Topic	Assignment
Nov 6	Begin Social Relations Model	KKC: Chapter 8 Chapters 1 & 2 of Kenny, D. A. (1994). *Interpersonal Perception*.
Nov 13	Continue Social Relations Model	Christensen, P. N. & Kashy, D. A., (In Press). Using the Social Relations Model to understand interpersonal perception and behavior. In H. Cooper, R. Gonzalez, P. Camic, D. Long, A. Panter, & K. Sher (eds.) *APA Handbook of Research Methods in Psychology*. Marcus, D. K., & Kashy, D. A. (1995). The social relations model: A tool for group psychotherapy research. *Journal of Counseling Psychology*. 42, 383-389.
Nov 20	**NO CLASS: FALL BREAK**	
Nov 27	Social Relations Model with Roles	KKC: Chapter 9 Ackerman, R. A., Kashy, D. A., Donnellan, M. B., & Conger, R. D. (2011). Positive engagement behavior in observed family interactions: A social relations perspective. *Journal of Family Psychology, 25,* 719-730.
Dec 4	One-with-many designs	KKC: Chapters 10 and 15 Marcus, D. K., Kashy, D. A, & Baldwin, S. A. (2009). Studying Psychotherapy Using the One-With-Many Design: The Therapeutic Alliance as an Exemplar. *Journal of Counseling Psychology.* Kenny, D. A., & Kashy, D. A. (2010). Dyadic Data Analysis Using Multilevel Modeling. In *The Handbook of Advanced Multilevel Analysis*, J. Hox and J. K. Roberts, (Eds.). Taylor & Francis: London. **Research Report Due**

These descriptions and timelines are subject to change at the discretion of the Professor.