

BrownBag Statistics Seminar Outline Fall 2014  
Wed, 1:30-2:30

17 Sept: **T-Tests, ANOVA and ANCOVA**

24 Sept: Article Discussion One

1 Oct: **Types of Regression Modeling**

Chapter 11 pp 401-404; 415-431 in Dunlop, D. D., & Tamhane, A. C. (2000).  
Statistics and data analysis: from elementary to intermediate. Prentice  
Hall. (available from SUTD library)

Thompson, B. (1986). ANOVA versus Regression Analysis of ATI Designs: An  
Empirical Investigation. Educational and Psychological Measurement.  
doi:10.1177/001316448604600411

8 Oct: Article Discussion Two

15 Oct: **Moderation and Mediation**

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable  
distinction in social psychological research: conceptual, strategic, and  
statistical considerations. Journal of Personality and Social  
Psychology, 51(6), 1173–1182. doi:10.1037/0022-3514.51.6.1173

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis  
in the New Millennium. Communication Monographs, 76(4), 408–420.  
doi:10.1080/03637750903310360

24 Oct (Friday): Article Discussion Three

12 Nov: **Factor Analysis**

Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The application of  
exploratory factor analysis in applied psychology: A critical review and  
analysis. Personnel Psychology, 39, 291–314. doi:10.1111/j.1744-  
6570.1986.tb00583.x

19 Nov: Article Discussion Four

26 Nov: **Structural Equation Modeling**

Chin, W. W. (1998). Commentary: Issues and Opinion on Structural Equation  
Modeling. MIS Quarterly, 22(1), 1. doi:Editorial

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in  
practice: A review and recommended two-step approach. Psychological  
Bulletin. doi:10.1037/0033-2909.103.3.411

3 Dec: Article Discussion Five

**Topic 6: Nested and Multilevel Structural Equation Modeling**

**Topic 7: Structural Equation Modeling and Longitudinal Methods**

Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology*, 112, 558–577. doi:10.1037/0021-843X.112.4.558

Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. *Research in Human Development*, 6(2-3), 144-164. doi:10.1080/15427600902911247

**Topic 8: Summary of Longitudinal Methods**

Ferrer, E., & McArdle, J. J. (2010). Longitudinal Modeling of Developmental Changes in Psychological Research. *Current Directions in Psychological Science*. doi:10.1177/0963721410370300

Goldstein, H. (2009). "Handling attrition and non-response in longitudinal data." *International Journal of Longitudinal and Life Course Studies* 1: 63-72.

**Topic 9: Handling Missing Data**

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

**Topic 10: Questionnaire Creation**