| EDP 382K: Correlation and Regression Methods |
| Spring 2015 – Unique #: 10545   Wednesdays 1:00 – 4:00   UTC 4.102 |

Instructor
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Course Description
- Topics will include simple linear regression, multiple regression, partial and semipartial correlation, multiple regression for prediction, hierarchical modeling, and regression analysis with categorical and continuous independent variables.
- The prerequisite for the course is EDP 380E or equivalent.

Required Course Materials
- Bobko, P. (2001). *Correlation and regression: Applications for industrial organizational psychology and management* (2nd ed.). Thousand Oaks, CA: Sage.

- Miles, J., & Shelvin, M. (2001). *Applying regression & correlation: A guide for students and researchers*. London: Sage.

- Class notes, available on our Canvas website. Class notes will be posted prior to the day on which the notes are discussed in class and may be retrieved on Canvas: canvas.utexas.edu.

Course Assessment
1. Exams: Three in-class exams will be administered at the start of class (**2/18, 4/1, 5/6**). Each exam will cover material from the lessons since the last exam (unless otherwise specified). You may use one 8.5" X 11," two-sided page of notes (students will likely be much better prepared if they don't need to rely on it). Missed exams may not be made up unless arrangements have been made prior to class.

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2. Optional Homework Assignments: Optional homework will be assigned throughout the course in order to give students a chance to apply and practice the concepts learned in class and will involve using SPSS software. The optional homework assignments will not be graded, however, the answers will be posted for students to check their own work. While these assignments are not due for a grade, they will help students better prepare for the exams and master the material.

Course Grades

Your exams (percentage correct on each exam) will be weighted equally. Grades will be posted to our Canvas website – please periodically check for any keypunch errors. Final grades will then be assigned based on the scale below.

Overall Course Percent	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-
below 70%	F

Unless a computational error has been made, grades will not be changed after the end of the semester.
No Extra Credit: Your course grades are based only on the above information. There will be no extra-credit opportunities.
Grades of "Incomplete:" Unless the student can demonstrate that near catastrophic events have led to a case of extreme hardship, grades of "Incomplete" will not be given.
Attendance: Attendance will not be part of your grade. Students who attend class, of course, tend to be better prepared for assignments.

Access to IBM SPSS
- IBM SPSS is available in the following campus labs: MEZ 2.104 (5 copies).
- You may purchase a 6-month or 1-year student license of IBM SPSS (Standard Grad Pack) for $58.49 or $97.99, respectively. Visit the following: http://www.onthehub.com/spss/
- Another FREE option is to run SPSS by logging into a virtual environment from anywhere with a network connection to use the software instead of having to come up to SZB to use it in the lab. This will be demonstrated during class on the first day. Go to: https://desktop.edb.utexas.edu. Click on CoE_Stats icon. A Windows screen will pop up. Click on the start button and then All Programs. Click on Applications and then IBM SPSS Statistics 21.

Accommodations For Persons With Disabilities

Students with disabilities who require special accommodations need to get an accommodation letter that documents the disability from the Services for Students with Disabilities (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time. Five business days before an exam, the student should remind the instructor of any testing accommodations that will be needed. See the following website for more information: http://ddce.utexas.edu/disability/.

Correlation and Regression Methods
Spring 2015 Tentative Schedule, Topics, and Reading Assignments

Date	Topic	Miles & Shevlin	Bobko
1/21	Course Introduction Review of Important Statistical Concepts	pp. 1-9 pp. 58-60	pp. 6-11, and any previous Statistics texts
1/28	Measures of Association • Pearson product-moment correlation, r • Factors that affect r • Spearman correlation • Phi correlation • Point-biserial correlation • Biserial correlation		Ch. II
2/4	Testing Measures of Association for Statistical Significance		Ch. III
2/11	Univariate Assumptions **EXAM 1 REVIEW**	pp. 61-84	
2/18	*EXAM 1* Introduction to Simple Linear Regression • Basic model and parameters		
2/25	More Simple Linear Regression • Relation between correlation and regression • Least squares criterion, residuals, standard error of estimate • Tests of significance, confidence intervals	pp. 9-26	Ch. VI
3/4	Introduction to Multiple Regression • Relation to simple regression • Tests of significance • Partial and semipartial correlation	pp. 27-34	Ch. VIII pp. 168-174
3/11	More Multiple Regression • Assumptions and diagnostics • Outliers and diagnostics • Multicollinearity	pp. 84-112 pp.126-132	
3/18	*SPRING BREAK!!!!!* ☺		
3/25	Patterns of association **EXAM 2 REVIEW**		
4/1	*EXAM 2* Model selection techniques	pp. 34-39	

4/8	Categorical independent variables	Ch. 3	pp. 255-261
4/15	Moderation	pp. 165-187	pp. 218-233
4/22	Mediation	pp. 187-191	
4/29	Loose Ends **EXAM 3 REVIEW**		
5/6	***EXAM 3***		

Other Suggested References

Berry, W. D. (1993). *Understanding regression assumptions.* Sage University Paper Series on
     Quantitative applications in the Social Sciences, 07-092. Newbury Park, CA: Sage Publications, Inc.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied Multiple Regression/Correlation*
     Analysis for the Behavioral Sciences. (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Edwards, A. L. (1984). *An introduction to linear regression and correlation.* New York, NY:
     Freeman.

Glantz, S. A., & Slinker, B. K. (1990). *Primer of applied regression and analysis of variance.* New
     York, NY: McGraw-Hill, Inc.

Hamilton, L. C. (1992). *Regression with graphics.* Belmont, CA: Wadsworth, Inc.

Hardy, M. A. (1993). *Regression with dummy variables.* Sage University Paper Series on
     Quantitative applications in the Social Sciences, 07-093. Newbury Park, CA: Sage Publications, Inc.

Lewis-Beck, M. S. (1980). *Applied regression: An introduction.* Sage University Paper Series on
     Quantitative applications in the Social Sciences, 07-022. Newbury Park, CA: Sage Publications, Inc.

Liebetrau, A. M. (1983). *Measures of association.* Sage University Paper Series on
     Quantitative applications in the Social Sciences, 07-032. Newbury Park, CA: Sage Publications, Inc.