Psychology 675
Applied Psychological Measurement
Spring 2011

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Office: LS 275
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Office Hours: T & Th, 1-2pm, and by appointment

Class time and room: Tuesdays and Thursdays, 2:00pm – 3:15pm. LS 111

Required Text:

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd Ed.). New York: McGraw Hill. (NB)

Hattrup, K. (2011). Psychological testing and measurement: A pragmatic approach. San Diego: Montezuma Publishing. (H)

Additional readings (see below) are available for purchase at Cal Copy. In most cases, your understanding of material discussed in class is contingent on your understanding of material presented in the readings.

Objectives: This is a graduate course designed to provide students with an introduction to current theory, methodology, and practice in the area of psychological testing and measurement. In particular, upon completion of this course, students should (1) have knowledge and expertise with basic test construction principles, (2) have knowledge and expertise of major theoretical perspectives on test construction and evaluation, (3) be able to construct reliable and valid multi-item measures of cognitive and non-cognitive constructs, (4) be able to perform statistical analyses and interpret results relevant to item analysis, test reliability, validity, test bias, and test use, and (5) have an understanding of a variety of testing issues, including bias and fairness in testing, decision making with tests, and test score interpretation.

Evaluation: There will be two exams, held on April 5 and May 19. Both exams will include multiple choice items and essay items, will be administered in the classroom, and will be hand-written examinations. Each exam will be worth 20% of your grade, totaling 40% overall. Students will also complete three applied projects that will model common test construction and evaluation tasks. Additional information about the projects will be provided in class. Students will work in groups of up to three members to complete the applied projects. A final written report is required from each group for each project. Each project will be worth 20% of the final grade, for a total of 60% for all projects combined. Like all graduate-level courses, attendance is a required component of this course.

Academic Integrity: The following is printed in the SDSU Graduate Bulletin:

Plagiarism

> ***Plagiarism is formal work publicly misrepresented as original; it is an activity wherein one person knowingly, directly, and for lucre, status, recognition, or any public gain resorts to the published or unpublished work of another in order to represent it as one's own. Work shall be deemed plagiarism: (1) when prior work of another has been demonstrated as the accessible source; (2) when substantial or material parts of the source have been literally or evasively appropriated (substance denoting quantity; matter denoting qualitative format or style); and (3) when the work lacks sufficient or unequivocal citation so as to indicate or imply that the work was neither a copy nor an imitation. This definition comprises oral, written, and crafted pieces. In short, if one purports to present an original piece but copies ideas word for work or by paraphrase, those ideas should be duly noted.***
> ***Source: Lindsay, A. Plagiarism and originality. 1952.***

San Diego State University is a publicly assisted institution legislatively empowered to certify competence and accomplishment in general and discrete categories of knowledge. The President and faculty of this University are therefore obligated not only to society at large but to the citizenry of the State of California to guarantee honest and substantive knowledge in those to whom they assign grades and whom they recommend for degrees. Wittingly or willfully to ignore or to allow students' ascription of others' work to themselves is to condone dishonesty, to deny the purpose of formal education, and to fail the public trust.

The objective of university endeavor is to advance humanity by increasing and refining knowledge and is, therefore, ill served by students who indulge in plagiarism. Accordingly, one who is suspected or accused of disregarding, concealing, aiding, or committing plagiarism must, because of the gravity of the offense, be assured of thorough, impartial, and conclusive investigation of any accusation. Likewise, one must be liable to an appropriate penalty, even severance from the University and in some cases revocation of an advanced degree, should the demonstrated plagiarism clearly call into question one's general competence or accomplishments.

Because academic integrity is so central to our mission, plagiarism in any form cannot be tolerated, and will lead to serious consequences for everyone involved.

TENTATIVE Schedule and Reading Assignments

Week	Dates	Topic(s) & Recommended Readings
1 - 2	**1/20 – 1/25**	**Introduction** NB, Ch. 1; H, Ch. 1 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapters 1 & 2)
2 - 3	**1/27 – 2/3**	**Statistical foundations & Scaling** NB, Chs. 4-5; H, Chs. 3-5 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapters 3-6)
4.	**2/8 – 2/10**	**Scaling, Introduction to test construction** NB, Ch. 2; H, Ch. 2 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapters 7 & 12) Schmitt, N., & Klimoski, R. J. (1991). Research methods in human resources management. Cincinnati, OH: South-Western Publishing. (Ch. 10: "Assessing employee attitudes and opinions")
5.	**2/15 – 2/17**	**Test construction (cont.)**
6.	**2/22 – 2/24**	**Item analysis** NB, Ch. 8; H, Ch. 6 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapter 13)
7.	**3/1 – 3/3**	**Item analysis, Item Response Theory** NB, Chs. 9 - 10
8.	**3/8 – 3/10**	**Classical Test Theory and reliability** NB, Ch. 6; H, Ch. 7 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapter 8)

9.	**3/15 – 3/17**	**Reliability analyses** NB, Ch. 7; H, Ch. 8 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapter 9)
10.	**3/22 – 3/24**	**Reliability analyses & uses (cont.)** NB, Ch. 7; H, Ch. 9
	3/28 – 4/1	**SPRING BREAK**
11.	**4/5**	**EXAM 1**
11.	**4/7**	**Exploratory factor analysis** NB, Ch. 11
12.	**4/12**	**Exploratory factor analysis (cont.)** NB, Ch. 12
11.	**4/14**	**NO CLASS – SIOP CONFERENCE**
13.	**4/19 – 4/21**	**Introduction to Test Validation** NB, Ch. 12; H, Ch. 10 Binning, J. F., & Barrett, G. V. (1989). Validity of personnel decisions: A conceptual analysis of the inferential and evidential bases. Journal of Applied Psychology, 74, 478-494.
14.	**4/26 – 4/28**	**Test validation** NB, Ch. 3; H, Ch. 10 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapter 10) Society for Industrial and Organizational Psychology. (2003). Principles for the validation and use of selection procedures (4th Ed). Bowling Green, OH: Author.
15.	**5/3**	**Decision making with test scores** H, Ch. 11 Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). Measurement theory for the behavioral sciences. San Francisco: Freeman. (Chapter 11) Schmitt, N., & Klimoski, R. J. (1991). Research methods in human resources management. Cincinnati, OH: South-Western Publishing. (Ch. 9: "Decision making on human resource issues in organizations")

15-16.	**5/5 – 5/10**	**Assessment of test bias** H,. Chs. 12-14
17.	**5/19**	**EXAM 2 (1pm – 2:30pm)**