#### APPLIED PSYCHOMETRICS

INSTRUCTOR: Barbara G. Dodd

OFFICE: Sanchez Building 538L

OFFICE HOURS: Monday 1:00 – 4:00 and by appointment

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REQUIRED TEXT: Cizek, G. J. & Bunch, M. B. (2007). Standard Setting: A guide to

establishing and evaluating performance standards on tests.

Thousand Oaks: Sage Publications.

A packet of selected reading available from Jenn's Copy &

Binding, 2200 Guadalupe St., (512) 473-8669.

COURSE REQUIREMENTS: Four unit assignments

EVALUATION: Course grades will be based on an average of the letter grades

earned on the unit assignments, with each counting equally.

ADA ACCOMMODATIONS: The University of Texas at Austin provides upon request

appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean

of Students at 471-6259, 471-4641 TTY.

#### RECOMMENDED SUPPLEMENTARY REFERENCES:

Applied Measurement in Education. (Number 1, 2005). Vertically moderated standard setting. (Includes six papers). [Special issue].

Applied Psychological Measurement. (July, 2004). Concordance. (Includes five papers.) [Special issue].

*Journal of Educational Measurement*. (Spring, 2004). Assessing the population sensitivity of equating functions. (Includes four papers.) [Special issue].

Cizek, G. J. (Ed.) (2012). Setting performance standards: Foundations, methods and innovations. Marceline, MO: Wadsworth Publishing Co.

Holland, P. H. & Wainer, H. (Eds.) (1993). *Differential item functioning*. Hillsdale NJ: Lawrence Erlbaum Associates.

Kolen, M. J., & Brennan, R. L. (2014). *Test equating, scaling, and linking: Methods and practices*. New York: Springer.

Wainer, H. & Braun, H. I. (Eds.) (1988). *Test validity*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

### OUTLINE OF TOPICS AND REQUIRED READING ASSIGNMENTS

TOPICS READINGS

I. Methods of Equating Test Scores Angoff, chapter 3

Crocker & Algina, chapter 20

A. Equipercentile

B. Linear

C. Item Response Theory

II. Methods of Setting Standards Cizek, Chapter 1-3, 6, 8, 9, 10

A. Judgments Based on Test Items

B. Judgments Based on Individual Examinees

C. Judgments Based on a Group of Examinees

III. Selection, Placement, and Classification Crocker & Algina, chapter 12

A. Regression Technique

B. Multiple Cutoff Score Technique

C. Bias in Selection

IV. Methods of Detecting Differential Item Functioning Holland & Thayer, chapter 9

A. Item Response Theory

B. Chi-Square

C. Item Difficulty

D. Mantel & Haenszel

E. SIBTEST

# TENTATIVE SCHEDULE:

CTT equating
CTT equating
IRT Review + equating
IRT equating + assignment
Standard Setting – Item centered plus Angoff demonstration
Ebel, bookmark, Examinee centered approaches – Borderline, booklet classification
Contrasting groups, smoothing, up-and-down method, MEC approaches
MEC Approaches, New advances + assignment
Spring Break
Selection, Placement
Selection, Placement
Selection, Placement + assignment
DIF
DIF
DIF + assignment
Review + CIS

## **UNIT ASSIGNMENTS:**

- I 2/10 due 2/17
- II 3/9 due 3/23
- III 4/6 due 4/13
- IV 4/27 due 5/4