

EDF 7439 — Item Response Theory

Fall - 2006

Time:

Wednesdays 4:05 – 7:05 pm

Room: NRN 219

Professor: Dr. Walter Leite

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Office hours: Wednesdays 1:00 to 4:00 pm

Class Website:

<http://lss.at.ufl.edu/>

Professor's website:

<http://www.coe.ufl.edu/Faculty/Leite/index.html>

Course Materials

- Hambleton, R. K., Swaminathan, H. and Rogers, H. J. (1991). Fundamentals of Item Response Theory. Newbury Park, CA: Sage.
- Course package

Objectives

The objective of the course is to provide training in the theory and application of item response theory (IRT) as it pertains to educational and psychological measurement. By completion of the course, students are expected to have a firm grasp of: (1) the advantages of IRT compared to classical test theory, (2) the different IRT models that can be used and their properties, and (3) common applications of IRT.

Course Requirements

1. In-class exam over unit I
2. In-class exam over unit II
3. Presentation about the state-of-the-art of one IRT topic.

Evaluation

Grades will be based on an average of the requirements above, with each counting equally. The presentation about the state-of-the-art of one IRT topic will happen on the last day of class.

Grades will be assigned according to the standard UF scale:

<i>Overall course percent</i>	<i>grade</i>
90.0% - 100%	A
85% - 89.9%	B+
80.0% - 84.9%	B
75% - 79.9%	C+
70.0% - 74.9%	C
65% - 69.9%	D+

Topics Covered

TOPICS	READING
Unit I	
A. Classical test theory.....	Hambleton ch. 1
B. Assumptions of item response theory..... Dichotomous item response theory models	Hambleton ch. 2
C. Polytomous item response theory models.....	Embretson ch. 5
D. Ability scales.....	Hambleton ch. 5
E. Estimation of ability..... Item calibration	Hambleton ch. 3 Embretson ch.7 - 8
Unit II	
A. Model-data fit.....	Hambleton ch.4
B. Information functions.....	Hambleton ch. 6
C. Test construction	Hambleton ch. 7
C. Multidimensional item response theory models.....	Reckase (1997)
D. Differential Item Functioning	Hambleton ch.8
E. Linking and equating.....	Hambleton ch. 9
F. Computerized adaptive testing.....	Hambleton ch.10 Meijer (1999)

Disability Policy

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.