EDF 7439 — Item Response Theory  
Fall - 2006

Time: 
Wednesdays 4:05 – 7:05 pm  
Room: NRN 219

Professor: Dr. Walter Leite  
Office: Norman Hall 1420  
Phone: 352-392-0723 extension 240  
E-mail: walter.leite@coe.ufl.edu

Required Course Material

- Course package available at Target Copy.

Topics Covered

1. Models for binary data: One-parameter logistic model, two-parameter logistic model, and three-parameter logistic model.
2. Assumptions of models for binary data.  
3. Ability and parameter estimation for binary models.  
4. Assessment of model fit  
5. The trait level measurement scale  
6. Item and test information functions  
7. Computer software for IRT  
8. Polytomous IRT models: graded-response model, partial credit model, generalized partial credit model, rating scale model, nominal response model  
9. Equating with IRT  
10. Assessment of item bias (differential item functioning)  
11. Computerized adaptive tests  
12. Models for cognitive diagnosis  
13. Applications of IRT  
14. Designing simulation studies to evaluate IRT models