New Course Announcement
Autumn Quarter 2006

Fundamentals of Item Response Theory

Psychology 831.08
(Seminar in Psychological Statistics)

Instructor: Michael Edwards
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Tuesdays: 10am-12:30pm
(3 Credit Hours)

Item response theory (IRT) has become increasing popular over the last few decades in a wide variety of fields. Whether it is being used to create computerized adaptive tests for health related quality of life, allow for seamless equating in K-12 educational testing, or to create more precise measurement instruments in psychological testing, IRT has become an essential feature of the modern measurement landscape. This graduate level seminar will be broken into three sections. The first section will provide a brief overview of classical test theory (CTT), focusing on the assumptions typically made in CTT and how IRT allows us to relax those assumptions. The second portion of the class will cover the basic IRT models (2- & 3-parameter logistic, graded response model, etc.), with the emphasis on understanding the parameters and the basic concepts involved. This second part will also explores different software packages available for estimating the parameters of these models. Finally, we will briefly discuss several advanced topics to provide an overview of the wide variety of potential uses for IRT. Topics in this section will include: measurement invariance, computerized adaptive testing, linking, equating, and multidimensional IRT models.