

**PSYCHODIAGNOSTICS II:**  
**TESTS AND MEASUREMENTS**  
**THROUGH A NEUROPSYCHOLOGICAL LENS**

Spring 2010

Instructor: Hilary Gomes

Class Time: Thursday 2-3:50

Office: NAC 7/214

**Books:**

1) Psychological Testing: Principles, Applications, and Issues (6<sup>th</sup> edition). By R. M. Kaplan & D. P. Saccuzzo. Wadsworth/Thomson Learning, 2004.

2) Pediatric Neuropsychological Intervention. By S. J. Hunter and J. Donders. Cambridge University Press, 2007.

**Course Description:**

This course is an introduction to assessment with a neuropsychological focus. Topics will include general and neuropsychological assessment, and the assessment of developmental and acquired disabilities. I have 4 major goals for the class: 1) to improve your understanding of the assumptions and constructs underlying assessment (including standardization and norms, reliability, and validity), 2) to improve your observational skills and on line hypothesis testing, 3) to introduce you to the assessment of neuropsychological functions, and 4) to have you gain some experience testing live participants.

**Grading:**

30% Testing Assignments (including 3 testings, scoring protocols, short write-ups)

30% Case Report on final testing case (due May 15<sup>th</sup>)

10% Case Presentation on final testing case

30% Research Paper (due May 1st)

Grading will reflect the following scale:

Quality Work

A

A-

Competent Work

B+

B

B-

Not-yet Competent

C - F

**Paper:**

During the semester you will write a paper about a neuropsychological function. You should include what the function is, how it is assessed and describe some disorders that evidence difficulties with the specified function. Topics will need to be approved by me. Papers should be 8-10 pages double spaced and should be written in APA format (for information

see the Publication Manual of the American Psychological Association, 5<sup>th</sup> Edition, 2001. APA). The paper will be graded on writing style (20%- Please be sure that the paper is well written), use of relevant and accurate references (20%), and scientific merit and clarity (60%). Late papers will be graded down 1 full letter grade.

**Case presentation:**

Toward the end of the class, each of you will present your final testing case for 10 minutes. The form of the presentation can be power-point, or a hand out. One aim is for others in your class to learn from your case. The second aim is for you to get experience presenting case material in an organized fashion. You will be graded on form and content. The schedule of the presentations will be determined during our first classes.

**Week 1 – Introduction and Course Organization**

- a. Course overview
- b. History of Psychological testing
- c. What are psychological tests?
- d. What can/can't psychological tests do?

Homework: Administer WISC IV to your partner. Turn in scored protocol.

Reading: Ch 1 & 21 (Kaplan)

**Week 2 – Ethical considerations**

Homework: Decide on topics for research paper

Homework: Check scoring of another student. Turn in rescored protocol.

Reading: Ch 2 (Kaplan)

**Week 3 – Standardization, Norms, & Understanding Test Scores**

- a. Related statistical concepts: scales, central tendency, variability
- b. Developmental norms
- c. Percentiles
- d. Standard scores

Homework: Administer WISC IV to a Masters student

**Week 4 – Standardization continued**

Homework: Score and turn in protocol with brief description of behavior (including interpersonal factors which could impact on performance)

Reading: Ch 3 and 4 (Kaplan)

### Week 5 – Reliability

- a. Related statistical concepts: correlation and regression
- b. Types of reliability
- c. Measurement error
- d. Assessment of reliability
- e. Standard error of measurement

Homework: Score your partners protocol. Turn in rescored protocol

### Week 6 – Reliability continued

Reading: Ch 5 and 19 (Kaplan)

### Week 7 – Validity

- a. Types of validity
- b. Measurement of validity
- c. Decision theory
- d. Sensitivity/specificity
- e. Positive/negative predictive power
- f. Test bias

Homework: Administer WISC IV to a child (or an undergraduate).

### Week 8 – Validity continued

Reading: Ch 7 and 8 (Kaplan)

### Week 9 – Test Administration and Interview Techniques

Reading: Ch 9, 10, 11, and 12 (Kaplan)

Homework: Score and turn in protocol.

### Week 10 – Assessment of Cognitive Function – Basic Issues and Approaches.

- a. What is intelligence?
- b. Problems in assessment of intelligence
- c. Theories of trait/aptitude organization
- d. Brief review of common tests/Application of psychometric constructs
- e. Infant and early childhood
- f. Assessment of Learning Disabilities

Reading: WISC IV technical manual

Homework: Score and turn in partner's protocol.

**Week 11 - The WISC**

Reading: Chapters 1, 2, and 3 (Hunter) and Mattis article

**Week 12 – The Developmental Approach to Neuropsychological Assessment**

Reading: Ch 13 (Hunter) and Halperin article

Homework: Research paper due next class.

**Week 13 – Attention, Executive Functions and ADHD**

Reading: Ch 12 (Hunter)

Due: Research Paper

**Week 14 – Language, Reading and Language learning disabilities**

Homework: Case report due next class

**Week 15 - Case presentations**

Due: Case Report