

**Psychology 722**  
**Individual Intelligence Measurement**  
Fall, 2007

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Class time: Wednesdays 9:00-12:00 (634 Poe Hall)

**Overview**

This course will introduce you to individually administered tests of cognitive processes and academic achievement. You will develop your skills for test administration, scoring, and interpretation as well as your ability to judge the validity of tests, to appreciate the principles that underlie good report writing, and to understand individual differences as they apply to assessment. The course includes lecture, demonstration, and supervised practice. The course is structured in an unusual manner. Rather than introducing general concepts and theories, and then working toward specific applications and technologies, you will learn specific technologies concurrently with general principles. In other words, most courses sequence material in a "top-down" manner, but the sequence in this course will be a mix of theory & practice.

**Course Objectives**

You will:

1. Administer, score & interpret the following tests using standardized directions:
  - a. Wechsler Intelligence Scale for Children-IV (WISC-IV)
  - b. Woodcock-Johnson—Third Edition, Cognitive Battery (WJ-III COG)
  - c. Woodcock-Johnson—Third Edition, Tests of Achievement (WJ-III ACH)
  - d. Comprehensive Test of Phonological Processing (CTOPP)
  - e. Beery Test of Visual Motor Integration (VMI)
  
2. With respect to diversity, you will develop:
  - a. An appreciation and awareness of the value of tests for assessing individual diversity
  - b. An understanding of the uses and limitations that tests may have for persons from

diverse ethnic, cultural, and socioeconomic backgrounds

3. Become familiar with basic interviewing principles
4. Recognize and apply major theories of intelligence and measurement principles when selecting, using, and interpreting assessment technologies; and
5. Become familiar with basic strategies for reporting test results through oral and written formats

### **Texts**

#### Required Texts:

Sattler, J. (2001). *Assessment of children: Cognitive Foundations (4th ed.)*. San Diego, CA: Author.

Sattler, J. & Dumont, R. (2004). *Assessment of children: WISC-IV & WPPSI-III Supplement*. San Diego, CA: Author.

Wechsler, D. (2003). Manual: *Wechsler Intelligence Scale for Children: Fourth Edition*. San Antonio, TX: The Psychological Corp.

#### I also recommend, and draw readings from, the following resources:

Flanagan, D. P., & Harrison, P. L. (eds.) (2005). *Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)*. New York: Guilford Press.

Sattler, J. (2006). *Assessment of children: Behavioral, Social, and Clinical Foundations (5th ed.)*. San Diego, CA: Author.

AERA, APA, NCME (1999). *Standards for psychological and educational testing (3<sup>rd</sup> ed.)*. Washington, DC: Author

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## Assignments, Topics, & Readings

Date	Assignment	Topic	Reading*
8/22		Introduction to Course Initial thinking: Just what is this thing called intelligence and can it be validly measured? Introduction to test standards, ethics and the law	APA Ethical Principles of Psychologists and Code of Conduct (2002) ITC International Guidelines for Test Use (2000)
8/29 8:30		History of intelligence & Current theories	Braden, J. P. (2003). Psychological assessment in school settings Sattler, Chapter 5: History and Theories Horn, John L. & Blankson, Nayena (2005). Foundation for Better Understanding of Cognitive Abilities.
9/5		Revisiting Measurement Issues: Focus on reliability & validity  WISC-IV, administration & scoring	Sattler, 2001, Chapter 4: Statistical/Measurement Concepts Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999), Part I-Test Construction, Evaluation and Documentation Zhu, J. & Weiss, L. (2005). The Wechsler Scales. WISC-IV Administration manual
9/12		WISC-IV, continued  Behavioral Observations	Sattler, 2001, Chapter 6: Issues related to measurement of Intelligence Sattler, 2001, Chapter 7: Administering Tests to Children
9/19		WISC-IV, interpretation	Wechsler, (2003). Chapter 6: Interpretive Considerations. WISC-IV Technical and Interpretive Manual. Saklofske, et al. (2005). Clinical interpretation of the WISC-IV FSIQ and GAI. Weiss et al. (2005). Interpreting the WISC IV index scores.

9/26	WISC-IV Protocol #1	Report Writing  WJ-III Cognitive Tests, administration & scoring	Sattler, 2001 Chapter 21: Principles of Report Writing WJ III-COG Examiner's manual
10/03	WISC-IV Protocol #2	WJ-III Cog, continued	McGrew, K.S. (2005). The Cattell- Horn-Carroll Theory of Cognitive Abilities. Schrank, F.A. (2005). Woodcock- Johnson III Tests of Cognitive Abilities.
10/10	WISC-IV Protocol #3 Report #1	WJ-III COG, interpretation	Woodcock-Johnson III Normative Update (Google and download)
10/17		CTOPP VMI	Respective manuals Sattler, J. M. (2006). Chapter 12: Visual-Motor Perception and Motor Proficiency.
10/24	WISC-IV Video	WJ III-ACH	WJ-III Achievement Examiner's Manual Mather, N. & Wendling, B. J. (2003). Instructional implications from the Woodcock-Johnson III.
10/31	WJ-III COG Protocol #1	Case studies	Sattler, 2001, Chapters 1&2: Challenges in Assessing Children; Mather, N. (2005) Linking Cognitive Assessment Results to Academic Interventions for Students with LD.
11/07	WJ-III COG Report #1 WJ-III ACH Protocol #1	Assessment of minorities	Sattler, 2001, Chapter 19: Background Considerations Sattler, 2001, Chapter 20: Research Findings [?Braden (n.d.); Braden & Irribarren (in press); Frisby, 1992; Ortiz & Dyna, 2005*; Neisser et al., 1996.?.]
11/14	CTOPP Protocol #1  VMI Protocol #1 WJ-III ACH Report #1	Interviewing   Best Practice/Revisiting intellectual assessment	Sattler (2006). Chapter 5: General Interviewing Techniques Sattler (2006). Chapter 6: Interviewing Children Parents, Teachers, and Families Flanagan, D. P. & Ortiz, S. O. (2002). Best practices in

			intellectual assessment: Future directions. Reschly, D. J. & Grimes, J. P. (2002) Best practices in intellectual assessment.
11/21		Thanksgiving	
11/28		Catch Up	
12/05	Presentation	Class presentations	

\* Location of Readings:

<b>PSY 722 Individual Intelligence Measurement Fall, 2007 Readings/Locations</b>	
<b>Reading</b>	<b>Location</b>
Braden, J. P. (2003). Psychological assessment in school settings. J. R. Graham & J. A. Naglieri (eds). <i>Handbook of psychology (vol. 10): Assessment Psychology</i> (Chapter 12; pp. 261-290). New York: Wiley.	e-reserves Braden
Flanagan, D. P. & Ortiz, S. O. (2002). Best practices in intellectual assessment: Future directions. In Thomas, A. & Grimes, J. P. (eds.). <i>Best Practices in School Psychology IV (4th ed.)</i> (pp. 1351-1372). Bethesda, MD: National Association of School Psychologists.	e-reserves Braden
Horn, John L. & Blankson, Nayena (2005). Foundation for Better Understanding of Cognitive Abilities. In Flanagan, D. P., & Harrison, P. L. (eds.). <i>Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)</i> (pp.41-68). New York: Guilford Press.	e-reserves Collins
Mather, N. & Wendling, B. J. (2003). Instructional implications from the Woodcock-Johnson III. In F. A, Schrank & D. P. Flanagan (Eds.). <i>WJ III clinical use and interpretation: Scientist-practitioner perspectives</i> . San Diego: Elsevier Academic Press.	e-reserves Braden
Mather, N. & Wendling, B. J. (2005). Linking Cognitive Assessment Results to Academic Interventions for Students with Learning Disabilities. In Flanagan, D. P., & Harrison, P. L. (eds.). <i>Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)</i> (pp. 269-294). New York: Guilford Press.	e-reserves Collins
McGrew, K.S. (2005). The Cattell-Horn-Carroll Theory of Cognitive Abilities. In Flanagan, D. P., & Harrison, P. L. (eds.).	e-reserves Collins

<i>Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)</i> (pp. 136-182). New York: Guilford Press.	
Prifitera, A., Saklofske, D. H., Weiss, L. G., & Rolfhus, E. (2005). The WISC-IV in the clinical assessment context. In Saklofske, D. H., Weiss, L. G., & Prifitera, A. (Eds). <i>WISC-IV clinical use and interpretation: Scientist-practitioner perspectives.</i> (pp.3-32). San Diego: Elsevier Academic Press.	e-reserves Braden (not required reading)
Reschly, D. J. & Grimes, J. P. (2002) Best practices in intellectual assessment. In Thomas, A. & Grimes, J. P. (eds.). <i>Best Practices in School Psychology IV (4th ed.)</i> (pp. 1337-1350). Bethesda, MD: National Association of School Psychologists.	e-reserves Braden
Saklofske, D. H., Prifitera, A., Weiss, L. G., Rolfhus, E., & Zhu, J. (2005). Clinical interpretation of the WISC-IV FSIQ and GAI. In Saklofske, D. H., Weiss, L. G., & Prifitera, A. (Eds). <i>WISC-IV clinical use and interpretation: Scientist-practitioner perspectives.</i> (pp.33-65). San Diego: Elsevier Academic Press.	e-reserves Braden
Sattler, J. M. (2001). <i>Assessment of children: Cognitive applications</i> . San Diego: Author.	text
Sattler, J. M. (2006). Chapter 5: General Interviewing Techniques. In J. M. Sattler <i>Assessment of children: Behavioral, Social, and Clinical Foundations</i> (pp. 105-144). San Diego: Author.	e-reserves Collins
Sattler, J. M. (2006). Chapter 6: Interviewing Children, Parents, Teachers, and Families. In J. M. Sattler <i>Assessment of children: Behavioral, Social, and Clinical Foundations</i> (pp. 145-171). San Diego: Author.	e-reserves Collins
Sattler, J. M. (2006). Chapter 12: Visual-Motor Perception and Motor Proficiency. In J. M. Sattler <i>Assessment of children: Behavioral, Social, and Clinical Foundations</i> (pp. 321-335). San Diego: Author.	e-reserves Collins
Schrank, F.A. (2005). Woodcock-Johnson III Tests of Cognitive Abilities. In Flanagan, D. P., & Harrison, P. L. (eds.). <i>Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)</i> (pp. 371-401). New York: Guilford Press.	e-reserves Collins
Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999), Part I: Test Construction, Evaluation and Documentation.	e-reserves Collins
Weiss, L. G., Saklofske, D. H., & Prifitera, A. (2005). Interpreting the WISC IV index scores. In Saklofske, D. H., Weiss, L. G., & Prifitera, A. (Eds).	e-reserves Braden
Zhu, J. & Weiss, L. (2005). The Wechsler Scales. In Flanagan, D. P., & Harrison, P. L. (eds.). <i>Contemporary intellectual assessment: Theories, tests, and issues (2nd ed.)</i> (pp. 297-324). New York: Guilford Press.	e-reserves Collins

## Assignments: Detailed Information

### *Protocols.*

I will assess your record forms, or protocols, for scoring accuracy. If you are a school psychology student, and/or you plan to use tests in your professional career for clinical/applied purposes, you must submit at least three WISC-IV protocols, one WJ-III Cog protocol, one WJ-III Ach protocol, one VMI protocol, and one CTOPP protocol that are free from scoring and identifiable administration errors. (See document [Error-Free Protocol Standards/Comments](#) for specific standards.) Along with your protocols for each instrument, you will also submit one Self-evaluation Form, and one Behavioral Observations form with each protocol. All protocols must also include a consent form. In addition, you will work in pairs to observe, and check scoring of, one WJ-III Cog, one WJ-III Ach, one CTOPP, and one VMI administration and submit an Administration Evaluation Form for each and sign off on the scoring of each protocol. If you are not a school psychology student, and do not plan to use tests for clinical purposes, you may negotiate alternative criteria for success. NOTE: A client may not be tested more than once with the same instrument, although it is possible to test the same client with other tests. You should make a strong effort to obtain diversity in the clients you work with. Only one consent form per client is required, regardless of the number of tests administered to that client. You may submit as many protocols as you need to meet this standard, but **you cannot pass the course without meeting (or negotiating) this standard**. If you do not meet this requirement, I will give a grade of "Incomplete" until you provide one error-free protocol for each test.

**Notice to school psychology students: Incompletes for this course must be removed before you can begin the practicum sequence.**

### *Written reports.*

You will write a brief report to accompany one WISC-IV test protocol, one WJ-III-Cog protocol, and one WJ-III-Ach protocol. All reports must include client information, subtest and/or factor scores, reason for referral, background information, observations, results, discussion, and your signature (see the [Report Evaluation Rubric](#)). Do not include any actual names for the client, client's family members, school, teacher, place of employment, etc.—use pseudonyms instead (e.g., Jane Doe, Regular Elementary School). Examples of reports are provided in the on-line course materials.

### *Videotapes.*

You must videotape yourself administering a WISC-IV. Tapes must include the following: video tape checklist, protocol (can "count" as one of the three required WISC-IV protocols noted above), and consent form.

ADVICE: Tape all of the test administrations you can; you never know which one will be your best. Do not expect to do well the first time or two you give a test. It is common for testing courses to require students to give 10 or more tests because it often takes that many administrations to become accurate and proficient. So, keep in mind that you may have to administer more tests than are required to meet proficiency standards.

*Summary of requirements for submitting protocols, written reports, and video:*

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Document	WISC-IV	WISC-IV	WJ-III-Cog	WJ-III-Ach	CTOPP	VMI
Protocols	Protocol Evaluation Rubric <b>Two Required</b>	Protocol Evaluation Rubric	Protocol Evaluation Rubric	Protocol Evaluation Rubric	Protocol Evaluation Rubric	Protocol Evaluation Rubric
Written Report	Report Evaluation Rubric		Report Evaluation Rubric	Report Evaluation Rubric		
Video	Video Rating Rubric Administrative Checklist for the WISC-IV					
Administration Checklist for appropriate test (self)			WJ-III Tests of Cognitive Abilities Examiner Training Checklist	WJ-III Tests of Achievement Examiner Training Checklist	TBA	TBA
Behavioral Observations (self)	Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist
Computer scoring	X	X	X	X		
Signed consent form	Parent Consent Form	Parent Consent Form	Parent Consent Form	Parent Consent Form	Parent Consent Form	Parent Consent Form
*Administration Checklist for appropriate test (peer)			WJ III Tests of Cognitive Abilities Examiner Training Checklist	WJ III Tests of Achievement Examiner Training Checklist	TBA	TBA
Test Session Overview (peer)			WJ-III General Test Observations Checklist	WJ-III General Test Observations Checklist	General Test Session Overview	General Test Session Overview
Behavioral Observations (peer)			Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist	Behavior and Attitude Checklist
Signature attesting that you assisted in the scoring of peer's protocol			X	X	X	X
* gray=peer materials						
Administer subtests:	1-10	11-15	1-10	1-13; 17&18	1-6/7	Copying, Visual,

*Test presentations.*

You will present a test to the class, selected from the following:

- Differential Ability Scales-2 (DAS-2)
- Cognitive Assessment System (CAS)
- Reynold's Intellectual Assessment Scales (RIAS)
- Stanford Binet, 5<sup>th</sup> edition (SB-5)
- California Verbal Learning Test-Children's version (CVLT-C)
- Wide Range Assessment of Memory and Learning-2 (WRAML-2)
- NEPSY-2
- Wechsler Individual Achievement (WIAT)
- Test of Word Reading Efficiency (TOWRE),
- Test of Early Reading Ability-3 (TERA-3)
- Test of Early Math Ability-3 (TEMA-3)
- Gordon Diagnostic System

You should prepare and distribute a 3-5 page handout for your peers summarizing the test's characteristics from theoretical, technical, and clinical/practical perspectives. I have provided an outline of the information you should cover, and a rubric for rating your presentation. HINT: Some excellent sources for preparing your handout include relevant test manuals, Sattler (2001), and reviews in *Buros Mental Measurements Yearbook*, *Test Critiques*, and other test review sources (e.g., *Journal of Psychoeducational Assessment*). You may locate reviews in *Buros Mental Measurements Yearbook* (on-line resource via NCSU libraries). The most useful guide may be the rating rubric for test presentations.

**Grading & Feedback**

You can earn a maximum score of 100. You must also pass the WISC-IV administration and complete all assignments. Should you earn less than 78 points, you must meet to discuss alternatives. Incompletes will be given according to university guidelines. Please contact me to discuss concerns, questions, etc., about the class.

The maximum number of points products may earn are listed below.

<b>Product</b>	<b>Points</b>
WISC-IV Protocols (3) (error-free)	10*
WJ-III Cog Protocol (error-free)	10*
WJ-III Ach Protocol (error-free)	10*
CTOPP Protocol (error-free)	5*
VMI Protocols (error-free)	5*
WISC-IV Report	10
WJ-III Cog Report	10
WJ-III Ach Report	10
WISC-IV Video	10*
Administration Evaluation Forms (peer evaluation)	5

\*Points given all-or-none for error-free protocol

Grades in the course will be assigned as follows (assuming protocol & video requirements are met; if not, an Incomplete will be assigned regardless of points earned):

Points	Grade
98-100	A+
93-97	A
90-92	A-
88-89	B+
83-87	B
80-82	B-
78-79	C+
73-77	C
70-72	C-

I will give you detailed written feedback for each of your assignments. After reviewing feedback, please discuss with me any information that is confusing or inconsistent with your own analysis of the work. The final score for any assignment, however, rests with me.

### Testing Clients

We will work together to help each other recruit participants, or clients, for testing. UNDER NO CIRCUMSTANCES SHALL TEST SCORES BE SHARED WITH PARENTS OR CLIENTS. Recruitment of volunteers shall follow the guidelines included in the reader; all volunteers must sign (and, if a minor, have a parent/legal guardian sign) a written consent form. Consent forms (original or photocopy) must accompany protocols, reports, and videotapes. You may only test people who fit within the age range of the test you are using. You should strive for diversity in your client pool. It is common to offer each child a small treat or reward for their efforts.

### Comments

There is a lot to learn in this course. The range of learning varies from rote motor skills for manipulating test materials, to higher-order synthesis and analysis skills for interpreting test results. A firm grasp of basic measurement theory (reliability, validity, and elementary statistics) is necessary. This adds up to **A LOT** of work.

I want you to succeed in this class and strongly encourage input and suggestions at any time on how I could make classes more effective for you. Please share any obstacles that might prevent you from completing assignments on time (e.g., availability of participants or tests) with me, privately or in class. I am available by appointment, and by phone at other times, should you have any questions regarding course content, evaluation processes, or matters of professional/personal concern, I am available by appointment or by phone. I hope you will enjoy this class and

the opportunities it offers for you to experience the challenge and satisfaction of supporting children and adolescents as they learn.

### **Class Evaluations**

Online class evaluations will be available for students to complete during the last two weeks of class (November 26-December 9). Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will never know how any one student responded to any question, and students will never know the ratings for any particular instructors.

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## Test Presentation Rubric

### *Overview of the instrument:*

- Recommended uses/purposes
- Target client populations
- Publisher
- Overview of content (subtests, composites, etc.)
- Overview of materials
- Summary overview of administration procedures

### *Test Characteristics Useful for Understanding & Interpreting the Test*

- Norms
- Reliability
- Validity
- Special issues/other research

### *Test Interpretation*

- Types of scores
- Score meaning/interpretation

### *Test Evaluation*

- Under what circumstances might you choose to administer this test rather than a similar one?
- What are test strengths?
- What are test weaknesses?
- Additional resources (e.g., test reviews, articles, web sites)

The guiding principle of your presentation is to help your colleagues understand whether, when, and how to use the assessment instrument you have chosen. What are the qualities of the instrument that make it desirable in a given situation, and what might that situation be? How much confidence can you put in the results you obtain? What are the strengths and weaknesses of the instrument? I recommend combining media to present information, including handouts, slides or overheads, and in-class demonstration. You will have 20-30 minutes to complete your presentation.

### Rubric/Rating:

	Comments	Points/Possible
General overview		/3
Psychometrics		/5
Interpretation		/3
Your evaluation		/5
Permanent products		/2
Presentation		/2
<b>Total Score:</b>		<b>/20</b>

### **Error-Free Protocol Standards/Comments**

**Success Criteria:** An error-free protocol is a protocol that reflects no administration or scoring errors.\*

**Definition of Error:** Errors are any detectable meaningful deviation from standardized administration and scoring procedures. Therefore, errors of commission (i.e., things you do incorrectly, such as starting with the wrong item, stopping in the wrong place), and errors of omission (e.g., failing to write down a response, failing to get a basal or ceiling) can lead to mistakes.\*

\*In cases where it is ambiguous whether an error has occurred (e.g., a response that could be legitimately rated 1 or 2 is scored a 2), the performance is not considered an error. Only in cases where it is unambiguous (e.g., a 1 or 2 point response is scored 0; other errors described below) is a protocol considered to have an error.

Note: Because I want to establish that you can independently (i.e., without my help) administer and score each test, you must avoid these errors *prior* to my review of your work. In other words, you may not correct and resubmit an incorrect protocol to meet the error-free requirement. The point of the exercise is to encourage you to spot, and correct, your own errors. You are welcome to check with me or have friends check your protocols prior to submitting them to me.

**Rubric:** A rubric of common errors is included below. Because I cannot anticipate all possible forms of errors, this is not an exhaustive list. However it should give you some guidance.

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