George Mason University
College of Education and Human Development

EDRS 531 Educational and Psychological Testing
Fall 2010
Instructor: Anthony E. Kelly, Ph.D.
Class Date & Time: Mondays, 7:20 PM - 10:00 PM in Innovation Hall 336
Office Hours: 4:30-5:30 T, W 3:00-4:15, and by appointment (contact by email preferred)
Office Location: Commerce II Room 113B. Office Phone: 703-993-9713.
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COURSE DESCRIPTION

Emphasizes techniques and principles used in the construction, administration, and quantification of measuring devices for evaluation purposes. Discusses interpretation of standardized tests of ability, aptitude, achievement, interest, and personality.

REQUIRED TEXTS

Educational Assessment of Students, by Anthony J. Nitko and Susan M. Brookhart.

Psychological Testing and Assessment (6th), by Ronald Cohen and Mark Swerdlik.

Other readings as assigned.

NATURE OF COURSE DELIVERY

The course is structured around readings, reflections on those readings, class projects, activities, and papers. This course will be taught using lectures, discussions, and relevant group activities.

STUDENT OUTCOMES

Attainment of the overall goal will be demonstrated by students providing evidence of the ability to:

- apply the principles of educational measurement to relevant problems in testing
- understand basic technical characteristics of standardized tests
- interpret technical information presented in standardized test manuals
- interpret standardized test results
- evaluate published standardized tests and assessment instruments;
- knowledge of current professional practices and issues related to educational measurement and assessment;
- apply sound principles of measurement and assessment in multicultural

These learning objectives correspond to the competency standards advanced by three major educational organizations, namely, the National Council on Measurement in

Education (NCME), American Federation of Teachers (AFT), and the National Education Association (NEA). In *Standards for Teacher Competence in Educational Assessment of Students* (1990), these professional associations asserted that educators should be skilled in:

- *Choosing* assessment methods appropriate for instructional decisions.
- *Developing* assessment methods appropriate for instructional decisions.
- *Administering,* scoring and interpreting the results of both externally- produced and teacher-produced assessment methods.
- *Using* assessment results when making decisions about individual students, planning teaching, developing curriculum, and school improvement.
- *Developing* valid pupil grading procedures which use pupil assessments.
- *Communicating* assessment results to students, parents, other lay audiences, and other educators.
- *Recognizing* unethical, illegal, and otherwise inappropriate assessment methods and uses of assessment information

In addition NCME's Code of *Professional Responsibilities in Educational Measurement* (NCME, 1999) as well as *Standards for Educational and Psychological Testing* (AERA, 1999) serve as lenses through which each topic will be viewed and understood.

RELATIONSHIP TO PROGRAM GOALS AND PROFESSIONAL ORGANIZATION

The program goals are consistent with the following Learner-centered psychological principles (APA Division 15) outlined by the American Psychological Association Presidential Task Force in Education.

- Principle 1: The Nature of Learning Process
- Principle 2: Goals of the Learning Process
- Principle 3: Construction of Knowledge
- Principle 4: Strategic Thinking
- Principle 5: Thinking about Thinking
- Principle 6: Context of Learning
- Principle 10: Developmental Influences on Learning
- Principle 11: Social Influences on Learning
- Principle 12: Individual Differences on Learning
- Principle 13: Learning and Diversity

American Psychological Association (1997). Learner-Centered Psychological Principles*: Guidelines for the Teaching of Educational Psychology in Teacher Education Programs*.

Action Research (20%)

This requirement involves inquiry-based learning that requires students to investigate current issues and practices in standardized testing in a professional area.

Review of Standardized Tests (10%)

Students are required to review two (2) standardized instruments --- one cognitive test and one personality instrument (affective traits such as interest, adjustment, etc.).

Midterm Exam (20%)

A midterm exam will be given, see course activities.

Final Exam (25%)
A midterm exam will be given, see course activities.

Test Manual (25%). A test manual, exploring different assessment techniques, will be created during the semester.

Action Research

Guidelines to Action Research Reports

Topic: ***Researching Testing Practices in Your Professional Area***

1. Interview someone in your profession who is involved in standardized testing. Examples include individuals working in a personnel office who administer qualification tests to applicants; counselors who give test to gain insight into their clients' needs and interests; teachers who administer Standards of Learning Tests (SOLs) to comply with district and state standards-based requirements.
2. The focus of the interview should be:
   a. generally speaking, what role do the instrument(s) play in your work? (Example: "*They provide concrete information that hopefully reduces the errors we could make in our hiring practices.")*
   b. What are the specific purpose(s) in the instrument(s)? (Example, "*The XYZ test is given to identify if the applicant's typing speed is sufficient to qualify for the position.")*
   c. What are the strengths and limitations of the currently used assessments?
   d. What recommendations would you make for future assessments if such impediments as time and expenses did not exist?
   e. Additional feedback that emerges from the interview.
3. Summarize your findings in a narrative report. The narrative should include a description of how the individual was "recruited" for the interview and the setting. Also briefly describe the interview process (e.g., the use in audio taping, telephone interview, etc.). Attach a copy of the interview "raw data" to the narrative.

Class activities. Supplementary learning/reading assignments may be assigned during class periods. Please plan to attend each class session. Active class participation is required. Please be sure the instructor has your email address for communication purposes.

Letter grades will be assigned as follows:

A+ 98-100% A 93-97.49% A- 90-92.49%
B+ 88-89.49% B 83-87.49% B- 80-82.49%
C 70-79.49% F below 70%

Note:

• All written assignments must be typed and must follow APA format
• Grading on written work will take into account the following factors: quality of written work, knowledge of content area, and adherence to requirements of assignment. As a graduate student, it is expected that all of your work will be turned in on the assigned dates. A late assignment is subject to a penalty of 10% of the award for every day that it is overdue.

ASSESSMENT RUBRIC FOR PARTICIPATION AND ATTENDANCE

	LEVEL OF PERFORMANCE			
ELEMENT	Distinguished (9-10 pts.)	Proficient (8 pts.)	Basic (7 pts.)	Unsatisfactory (6 or less pts.)
Attendance & Participation 10 pts. Possible	The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence, the student actively participates and supports the members of the learning group and the members of the class.	The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student makes active contributions to the learning group and class.	The student is on time, prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in this section of the syllabus is followed.	The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is not prepared for class and does not actively participate in discussions.

ACADEMIC INTEGRITY
GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all

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aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

GMU EMAIL ACCOUNTS
Students must activate their GMU email accounts to receive important University information, including messages related to this class.

OFFICE OF DISABILITY SERVICES
If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS. http://ods.gmu.edu

OTHER USEFUL CAMPUS RESOURCES: WRITING CENTER: A114 Robinson Hall; (703) 993-1200; http://writingcenter.gmu.edu

UNIVERSITY LIBRARIES "Ask a Librarian" http://library.gmu.edu/mudge/IM/IMRef.html

COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS): (703) 993-2380; http://caps.gmu.edu

UNIVERSITY POLICIES The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university affairs.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

All students must abide by the following:
Students are expected to exhibit professional behavior and dispositions. See http://gse.gmu.edu/facultystaffres/profdisp.htm for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#Anchor12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See http://www.gmu.edu/facstaff/policy/newpolicy/1301gen.html.
Click on responsible Use of Computing Policy at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See http://www.gmu.edu/student/drc/ or call 703-993-2474 to access the DRC.

	Six thinking hats http://members.optusnet.com.au/charles57/ Creative/Techniques/sixhats.htm	
Week 1 Aug 31	Introduction to the Course Goals Central concepts Expectations Basic Assumptions About Psychological Measurement and Testing & Essential Qualities of a Good Test C&S, Chapters 4-6 Finding and evaluating tests, see Nitko Chapter 18; C& S Chapter 1 http://www.apa.org/science/programs/testing/find-tests.aspx	*Begin to clarify your assessment target (application)* Be aware, throughout, of the code of fair testing practices (Nitko & Brookhart, Appendix B, C) Review of Taxonomies (Appendix D, Nitko); Principles of Test Development C&S, Chapter 7. http://www.apa.org/science/programs/testing/fair-testing.pdf
Week 2 Sept 7	Cohen & Swerdlik (C&S), Chapter 6 Cohen & Swerdlik (C&S), Chapters 1-2 Validity What does it mean for a test to be **valid**? With application to your assessment? Nitko, Chapter 3. Principles of Test Development C&S, Chapter 7.	Targets of assessment: Nitko Chapter 2 SCANS: http://www.academicinnovations.com/report.html What do you plan to measure? How do you define the construct? How would you know if someone had learned the construct? What evidence would convince you? Written? Oral? Performance? Portfolio? Other?
Week 3 Sept 14	What does it mean for a test to be **reliable**? With application to your assessment? Nitko, Chapter 4 Review of Basic Statistical Concepts Required for Understanding and Interpreting Standardized Tests C&S, Chapter 3, & pp 114-125 Nitko & Brookhart Appendix I, Chapter 17	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Completion, short answer, and T/F; Chapter 7. Ask in class for clarification, as necessary. Get feedback from other students.
Week 4 Sept 21	Review of Basic Statistical Concepts Required for Understanding and Interpreting Standardized Tests C&S, Chapter 3, & pp 114-125 Nitko & Brookhart Appendix I, Chapter 17 Review reliability and validity as necessary	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Multiple Choice and matching; Chapter 8. Ask in class for clarification, as necessary. Get feedback from other students.

Week 5 Sept 28	Preparation/review for midterm exam. Bring questions!	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Chapter 9. Ask in class for clarification, as necessary.
Week 6 Oct 5	**Midterm exam in class**, reviewing C&S Chapters 3-6 as supplemented by Nitko & Brookhart and lectures.	Discussion of Test Manual/Action Research
Week 7 Oct 12	**No Class** **Columbus Day**	
Week 8 Oct 19	Understanding Standardized Cognitive Tests : Intelligence 1 Related Readings: C&S, Chapters 8-9 Nitko & Brookhart Appendix D	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Higher-order thinking, problem solving and critical thinking Chapter 10. Ask in class for clarification, as necessary.
Week 9 Oct 26	Understanding Standardized Cognitive Tests : Intelligence 2 Neuropsychology http://www.apa.org/science/leadership/tests/minority-neuro-biblio.pdf	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Performance, portfolio, and authentic assessments Chapter 11. Ask in class for clarification, as necessary.
Week 10 Nov 2	Understanding Standardized Cognitive Tests : Achievement Related Readings: C&S, Chapter 10; Appendix D (Key Math Technical Excerpt) Nitko on Metacognition, Appendix F	Bring to class, 3 sample items, and list 3 advantages and disadvantages for each format, for each of: Performance tasks, rating scales and rubrics; Chapter 12. Ask in class for clarification, as necessary.
Week 11 Nov 9	Personality Assessment C&S, Chapters 11-12 Nitko & Brookhart Chapter 19	How will you evaluate and grade student progress? Nitko, Chapter 15
Week 12 Nov 16	Clinical and Counseling Assessment: C&S, Chapter 13	

Week 13 Nov 23	Thanksgiving Week	Online; no class meeting http://research.gmu.edu/docs/RCR.pdf Ethical training (Certificate due next week)
Week 14 Nov 30	The Assessment of People with Disabilities: C&S, Chapter 15; select populations, http://www.apa.org/science/programs/testing/minority-dis-biblio.pdf http://www.apa.org/science/leadership/tests/minority-biblio.pdf	Ethical training Certificate (due)
Week 15 Dec 7	Assessment, Careers, and Business C&S, Chapter 16 Nitko & Brookhart Chapter 19 Integrating assessment and instruction Nitko, Chapters 1 and 6 Professional responsibilities (Nitko, Chapter 6) Nitko, Appendices A-C High stakes testing and principles http://www.aera.net/policyandprograms/?id=378 http://www.apa.org/pubinfo/testing.html also www.ctb.com click on	**Action Research Report Due** **Test manual due** **Test Review Reports Due** **Final exam assigned, Due December 14**