Professional Education Unit
Department of Foundational and Graduate Studies in Education

Measurement Principles and Techniques *Internet*
EDGC 661-301
3 Credit Hours (Graduate)
Spring 2010

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Course Description

From MSU Catalog: Identification of educational objectives associated with test construction; table of specifications; elementary statistics, testing and non-testing procedures. Investigations of major types of tests; administration, scoring, and interpretation of test results.

Further Description: This course is designed to provide students with an opportunity to become familiar with the area of tests and measurements in counseling and education. The class experiences have been selected and arranged to introduce students to the role and function of educational and psychological assessment. Students will be introduced to basic psychometric theory, classroom test construction, standardized testing, interpretation of standard assessment information and the role of assessment as an integral component of the educational and counseling processes.

"Community Engagement: A Light to and from the Mountains"

The Professional Education Unit at Morehead State University delivers rigorous, high quality programs that prepare professionals informed by best national and international scholarship, plus research, literature, and experiences specific to Appalachia- preparing professionals to improve the schools, quality of life, and the communities in which they live and serve. This statement is not only the strategic mission for the College, but it also incorporates the conceptual framework that guides all our activities.

Conceptual Framework Outcomes (CFOs):

The Unit and the faculty within individual programs assess the degree to which its graduates:

1) Master the content knowledge, professional and the twenty – first century skills need to make an optimal contribution to "whole" student learning in education settings.

2) Are competent in the collection and use of data to inform decision – making and to demonstrate accountability for student learning.

3) Demonstrate professional dispositions

4) Are culturally competent and understand the regions from which they have come utilizing knowledge and experiences to effectively "bridge the gaps" (economic, achievement, and geographic) ensuring optimal learning for all students.

5) Engage in authentic field experiences in collaboration with committed school – based partners and are empowered to improve the quality of education throughout this region and beyond.

Student Learning Outcomes (SLOs): By the end of the online course, each candidate will be able to:

1. demonstrate knowledge and understanding of the major concepts associated with measurement, evaluation and testing, and be able to distinguish among them.

2. demonstrate an understanding of current major social, ethical and legal issues in testing, measurement and evaluation.

3. describe how cultural, ethnic, and social factors influence an individual's performance on psycho-educational assessments and how these factors influence test score interpretation.

4. understand how to align course objectives and classroom assessments through the use of a test blueprint/table of specifications. (Bloom's taxonomy –cognitive.)

5. select and administer appropriate standardized instruments and interpret results;

6. demonstrate knowledge and understanding as well as the application of the concepts of reliability and validity as they relate to normed referenced and criterion referenced interpretation of tests.

7. compute, analyze, interpret, and evaluate descriptive statistics.

8. perform item analysis of test data and use the findings to describe methods for improving measurement qualities tests.

9. analyze, synthesize, and evaluate the measurement qualities of a standardized test using Buros' *Mental Measurement Yearbook* as an ***online*** resource.

10. understand accountability testing systems and policy implications of statewide and national assessment requirements (e.g., CATS, NAEP, NCLB).

KYS/KERA/NCATE/ EPSB/Counselor Standards Alignment of CFO's and SLO's:

Course → Assessments Aligned with **Course Assessment (Percent Values)** ↓	**Kentucky Teacher Standards (KYS)** http://kyepsb.net/teacherprep/standards.asp	**Kentucky Education Reform Act (KERA)** http://www.education.ky.gov/KDE/Instructional+REsources/Curriculum+Documents+and+Resources/Core+Content+for+Assessment/Core+Content+for+Assessment+4.1/	**National Council for the Accreditation of Teacher Education (NCATE)** www.ncate.org	**Education Professional Standards Board (EPSB)** http://kyepsb.net/	**Kentucky Standards for Guidance Counseling Programs** approved by the 2005 EPSB and derived from CACREP Standards
Assigned Readings: **Mini-Lecture on Announcement Page Bb; Textbook; Notes/PowerPoints; and External Links;** ***Assessed with Exams and Discussion Boards*** **CFO:** 1,2,3,4 **SLO:** 1-10	1,1;1,2;1,4;1,5;2,2;2,3;2,5;3,3;3,4;3,5;4,5;5,2;5,3;5,4;5,5;5,6;6.1;6.2;6.3;6.4;6.5;7.1;7.2;8.3;8.4	1,2,4,5	1d,1e,1f,1g,4a,	Literacy/Reading Diversity Assessment	A6,A10,B2,C1a,D1c,D1h,D2a,D2f,D4f,D7a,D7b,D7c,D7d,D7e,D7f,D7g,D7h,D7i
Weekly Formative Exams (20%) **CFO:** 1,2,3,4 **SLO:** 1-10	5.1;5.2;5.4;5.5;5.6	1,2,4,5,	1d,1e,1f,1g,4a,	Literacy/Reading Diversity Assessment	A6,A10,B2,C1a,D1c,D1h,D2a,D2f,D4f,D7a,D7b,D7c,D7d,D7e,D7f,D7g,D7h,D7i
Final Comprehensive Exam (30%) **CFO:** 1,2,3,4 **SLO:** 1-10	5.1;5.3;5.4;5.5;5.6	1,2,4,5	1d,1e,1f,1g,4a,	Literacy/Reading Diversity Assessment	A6,A10,B2,C1a,D1c,D1h,D2a,D2f,D4f,D7a,D7b,D7c,D7d,D7e,D7f,D7g,D7h,D7i
Weekly Discussion Board (25%) **CFO:** 1,2,3,4 **SLO:** 1-10	1,1;1,2;1,4;1,5;2,2;2,3;2,5;3,3;3,4;3,5;4,5;5,2;5,3;5,4;5,5;5,6;6.1;6.2;6.3;6.4;6.5;7.1;7.2;8.3;8.4	1,2,4,5	1d,1e,1f,1g,4a,	Literacy/Reading Diversity Assessment	A6,A10,B2,C1a,D1c,D1h,D2a,D2f,D4f,D7a,D7b,D7c,D7d,D7e,D7f,D7g,D7h,D7i
Mental Measurement Yearbook Assignment (25%) **CFO:** 1,2,3,4 **SLO:** 1-10	6.1;6.2;6.3;6.4;6.5	1,2,4,5	1d,1e,1f,1g,4a,	Literacy/Reading Diversity Assessment	A6,A10,B2,C1a,D1c,D1h,D2a,D2f,D4f,D7a,D7b,D7c,D7d,D7e,D7f,D7g,D7h,D7i

Assignment Descriptions:

Program: M.A.in Counseling Measurement Principles and Techniques	
Assessment (point value)	**Description**
Assigned Readings: Mini-Lecture on Announcement Page Bb; Textbook; Notes/PowerPoints; and External Links; ***Assessed with Exams and Discussion Boards***	As an introductory survey course in educational measurement, a great deal of material will be covered during the semester. **Reading the textbook assignments and/or Blackboard materials each week is required**. This course is completely online. **Weekly assignments will be presented and must be completed within the deadlines prescribed (Monday 8:00 AM through Sunday 11:55 PM).** Although ***all meetings will be asynchronous***, the quality of your participation in class discussions via the Discussion Board will impact your course grade.
Weekly Formative Exams (20%)	Weekly exams will be posted on Monday mornings before 8:00 AM. The exams must be completed and submitted by the following Sunday night at 11:55 p.m.(almost midnight). These **formative exams (exams <u>for</u> learning)** will consist of 20 multiple-choice items. Chapters and readings covered by the exam will be identified. Students may exit/re-enter the formative exams and change answers until the student reaches mastery [20/20] EACH WEEK. **Note: The EXAMS will be posted in two forms (1) Printable to use to guide your reading and to select your answers and (2) Answer Sheet to submit your responses for scoring**.
Final Comprehensive Exam (30%)	There will be a **summative (exam of learning)** 60-item, comprehensive, multiple-choice Final Exam during Finals Week. **Student will be able to enter/exit Answer Sheet only ONCE.**
Weekly Discussion Board (25%)	The requirement is that you will participate with at least one posting and one comment to another student's posting in the Discussion Board EACH WEEK. This will result in a weekly Discussion Board grade ranging from 0=no response; 2=comment about another student's response only; 3=original scholarly posting only; to **5=scholarly posting and a thoughtful response to another student's posting.**
Mental Measurement Yearbook Assignment (25%)	**Detailed description on Bb.** Using *Mental Measurements Yearbook* Review [available online through MSU's Library Link] to synthesize information given by two reviewers to evaluate a test. The student will choose a published standardized tests that has been reviewed by <u>two reviewers in Buros' *Mental Measurements Yearbook*</u> [available online through MSU's library]. **A format for this assignment will be provided at midterm of this course. This format must be followed <u>exactly</u> to complete the assignment**

Course Evaluation:

The candidate's course grade will be based on: [Weight for each assignment]

- Weekly Discussion Boards 25%
- Weekly (formative) exams 20%
- Final Exam (summative) 30%
- Mental Measurement Yearbook Paper 25%

Discussion Board participation will be graded each week by the instructor and the grade will be posted on the Blackboard Gradebook. Discussion Board Grading Scale: 0= no posting; 2=reply to another student's posting; 3=scholarly, original, responsive posting; 5=Both original posting and response to one other student's posting. Note: Possible points = 5.

The Exams will be immediately scored by Blackboard and the student's grade will be posted on the Blackboard Gradebook.

The Mental Measurement Yearbook Paper will be scored according to the rubric provided
on Blackboard. This assignment will not be available until the completion of the material for Chapters 9, 10, and 11.

Grading Scale: 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; 59% and below = E.

Percentages for individual assignments will be calculated based on Criterion-Referenced grading [candidate's raw score (number correct)/number of items]. Percentages will be weighted using the weights listed above. The weighted percentages will then be summed on Blackboard and the above Grading Scale will be applied. It is expected that all students will reach mastery of the assignments in this course. If assessment targets are not clear, please contact the instructor. Norm-referenced grading is NOT used in this course, thus, all candidates may obtain the grade of A if the work is successfully completed in a timely manner.

Required Textbooks:

REQUIRED TEXT:

Sax, G. (1997). *Principles of educational and psychological measurement and evaluation*. (4th ed.), Wadsworth Publishing., ISBN 0534257496

Additional required readings: *Course materials housed on MSU's Blackboard site [including External Links to Bb]*

Attendance Policy:

This online class an asynchronous class, that is, we will NOT meet at a specific time online. The candidate must attend this class on a weekly schedule and complete the weekly work between

Monday 8:00 AM and Sunday 11:55 PM. If a candidate has a personal or family emergency accommodations will be made IF the student notifies the instructor as soon as possible.

Academic Honesty

Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/ or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read the Eagle: Student Handbook or ask your instructor. An example of plagiarism is copying information from the internet when appropriate credit is not given. The policy is located at
http://morehead-st.edu/units/studentlife/handbook/academicdishonesty.html

Americans with Disabilities Act (ADA)

In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/

Campus Safety Statement

Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency

Course Calendar: The Course Calendar can be found on the next page of this Syllabus.

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Weekly Schedule

NOTE: "WEEK" IS DEFINED AS THE TIME PERIOD BETWEEN MONDAY 8:00 AM THROUGH SUNDAY 11:55 P.M.(ALMOST MIDNIGHT). ALL WORK FOR EACH WEEK MUST BE COMPLETED DURING THE WEEK IN WHICH IT IS ASSIGNED!

Week	Topic	Chapter
1	Fundamentals of Psycho-Educational Assessment	**1**
2	Legal, Social, and Ethical Implications of Testing	**2**
3	Planning the Teacher-Made Test	**3**
4	Principles of Test Construction: True-False, Multiple-Choice and Matching Items.	**4**
5	Principles of Test Construction: Completion, Open-Response Items, and Essay Tests.	**5**
6	Evaluating Items: Item Analysis and Interpretations	**8**
7	Summarizing and Interpreting Measurements: Descriptive Statistics	**7**
8	Summarizing and Interpreting Measurements: Norms and Score Interpretation	**7**
9	The Reliability of Measurements	**9**
10	The Validity of Inferences Obtained from Tests and Measurements	**10**
11	Standards for Selecting and Evaluating Standardized Tests.	**11**
12	The Nature and Measurement of Intelligence and Aptitudes	**12**
13	The Measurement of Aptitudes	**13**
14	Standardized Measures of Academic Achievement (CATS, CTBS, NAEP)	**14**
15	The Measurement of Interests, Attitudes, and Values;	**15**
16	The Measurement of Personality Traits **MMY Papers due Sunday 11:15 p.m. of THIS week!**	**16**
FINAL EXAM	**Available Monday 8:00 through Friday 11:55 PM of Finals Week**	**All**