

# Educational Measurement

## EDF 6432

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Please contact the professor by e-mail as a first choice. You may obtain a USF e-mail account at no charge by through the computer lab.

**Text:** Modern Educational Measurement (3rd) by James Popham

### Course Purpose:

Typically, modern teachers and their administrators are held accountable for the that occurs in their school as evidenced on tests. Tests are used for grades, placement decisions, and report to the public. Approximately one quarter of a teacher's time, according to some researchers, is spent writing, giving, grading, and interpreting tests and test scores. Unfortunately, teachers have not always been well-trained in the appropriate use and avoidance of abuse of test results. This class is designed to introduce future teachers to the field of measurement as practitioners and consumers of testing. It is not designed to produce statisticians, measurement theorists, or curriculum experts even though those disciplines underlie the creation and good use of tests in schools. The course will address the properties of scientific measurement, the interpretation of measurement, and the creation of measurement devices for the classroom teacher.

### General Information:

- 1.) Please pay attention to the announcements and emails from the instructor.
- 2.) Please use ASCII (text) or RTF (rich text files) OR type in the Blackboard boxes OR cut and paste to the Blackboard boxes. That way - people with other types of computers and word processors can read the discussions.
- 3.) Learn to use the Assignment Box and Bulletin Board tools early. DO NOT email documents; especially attachments to the instructor and your classmates. Many times, this spreads viruses, worms, and spyware. Other times, firewalls and antiviruses destroy or block your email. Use the Blackboard tools to post assignments and discussions. When you email classmates or the instructor, use the Blackboard email tool.
- 4.) Instructors may have 3 or 4 courses totaling over 100 students. If everyone sends in assignments each week, it's almost impossible to read or put points on assignments as fast as they come in...please be patient.
- 5.) With the Florida weather and the nature of computers, it's almost inevitable that power will be out, computers will be hit by lightning, or something will happen. Make backups of your assignments!

### Unit Topics

(These are by week in Fall and Spring, approximately 2 per week in the summer schedule):

Chapter 1:	Measurement's	Importance
Chapter 2:	What and How to	Measure
Chapter 3:	Instructional	Contributions
Chapter 4:		Validity
Chapter 5:		Reliability
Chapter 6:	Absence of	Bias
Chapter 7:	Comparative	Data
Chapter 8:	Assessment	Domain
Chapter 9:	Select	Response
Chapter 10:	Construct	Response
Chapter 11:	Performance	Assessment
Chapter 12:	Improving	Test Items
Chapter 13:	Affective	Measures
Chapter 14:	Administering	Tests
Chapter 15:	Standardized Tests	

Intertwined with these topics, are materials and applications relevant to the Florida Educator Accomplished Practices at the Preprofessional, Professional, and Accomplished Levels. If you are not familiar with these, they can be reviewed at:

<http://www.firn.edu/doe/dpe/publications.htm>

## Topical Outline:

Topic	Knowledge	Skills	Dispositions
Chapter 1: Measurement's Importance	Historical Context of Testing	Classify tests as application or aptitude.	Role of educational leaders in assessment.
Chapter 2: What and How to Measure	Norm and Criterion Referenced Testing	Using assessment in educational decisions.	Promoting understanding of assessment to laypeople.
Chapter 3: Instructional Contributions	Educational accountability	Assessment to plan instruction.	Professional Ethics and Educational Defensibility Guidelines. Valuing assessment as essential to the instructional process.
Chapter 4: Validity	Content, Criterion-related, and Construct evidence	Evaluation of the evidence for validity	Consequential validity
Chapter 5: Reliability	Stability, Alternate Form, and Internal Consistency evidence	Evaluation of the evidence for reliability	Consequential reliability
Chapter 6: Absence of Bias	Offensiveness and Unfair Penalties	Identifying bias in test administration	Valuing equal opportunity for all
Chapter 7: Comparative Data	Ordinal, Interval and Ratio scores	Interpreting results	Choosing false negatives vs. false positives
Chapter 8: Assessment Domain	Frameworks and Tables of specifications	Using taxonomies	Commitment to student growth
Chapter 9: Select Response	Rules of item writing	Test construction	Recognition that different strategies are necessary for monitoring and promoting learning

Chapter 10: Construct Response	Rules for item scoring	Test scoring	Commitment to fair judging
Chapter 11: Performance Assessment	Rubrics	Task selection and constructions	Commitment to critical and creative thinking
Chapter 12: Improving Test Items	Item analysis: Classical and IRT	Assessment improvements	Values improvement in assessment processes
Chapter 13: Affective Measures	Affective domain	Creating affective items	Valuing affect in education
Chapter 14: Administering Tests	Effective test administration rules and procedures	Standard setting and judgment	Valuing diverse grading approaches
Chapter 15: Standardized Tests	Misuse of Marvelous Measures	Leadership practices	Commitment to the Standards for Educational and Psychological Testing

## Evaluation Criteria:

This is an active learning course. Your participation is required. Many activities are "just do it".

Each Module will have *Activities* that are to be done. The results are usually submitted to the Blackboard Assignment Box or posted on your Group Bulletin Board. If there are adjustments because of schedule, Blackboard, or unexpected difficulties, the points for each grade will simply be adjusted proportionally after dropping an activity or quiz. Even though the grade of A, B, and C are listed below, it is possible to get a D, or F even though that is unusual for graduate courses. Also, if your points are on the cusp of a grade (within the standard error) between "A and B" or "B and C", all rounding will be towards the higher grade, but you might receive a "-" or "+" indicating the grades was barely over or below the criteria.

<b>Activity</b>	<b>Points</b>
15 Modules x 50pts (per Modules)	750
Test (15 module test * 10 pts)	150
optional exam	<u>100</u>
Total	1000

### Grades:

A = 850

B = 800

C = 750

You can see that doing all the activities and quizzes could earn you enough points for an A without taking the Final Exam.

## Schedule

Modules will automatically turn off on the dates given on the course calendar in Blackboard. You must NOT PROCRASTINATE! The only exceptions are illness, family crisis, and course delivery problems. Your instructor is going to an overseas meeting the first week of July and returning on July 11. Even though we

should continue to work on line, please expect some delay in communications at that time. During the "catch up week" you should make up missing modules or resubmit transmission issues.

<u>Date</u>	<u>Lesson Opens</u>	<u>Lesson Closes</u>
August 29	Introduction	
September 2	Lesson 1	
September 9	Lesson 2	Lesson 1
September 16	Lesson 3	Lesson 2
September 23	Lesson 4	Lesson 3
September 30	Lesson 5	Lesson 4
October 7 (make up)	Lesson 6	Lesson 5
October 14	Lesson 7	Lesson 6
October 21	Lesson 8	Lesson 7
October 28	Lesson 9	Lesson 8
November 4	Lesson 10	Lesson 9
November 11(make up)	Lesson 11	Lesson 10
November 18	Lesson 12	Lesson 11
November 25	Lesson 13	Lesson 12
December 2	Lesson 14	Lesson 13
December 9	Lesson 15	Lesson 14
December 14 (make up)	(Friday)	Lesson 15

## Class behavior:

Please be considerate of others. Critical discussion, opinions, and provocative statements on the internet are encouraged. Personal attacks and spam are not appropriate.

### Internet HELP at USF!

- 813-974-1222 in Tampa
- 866-974-1222 Statewide Toll Free
- [help-ac@usf.edu](mailto:help-ac@usf.edu)
- <http://www.acomp.usf.edu/helpdesk>

### How to study:

You must participate. Look for your own examples, explore topics in the library, have study and discussion groups, **immerse yourself in the topic**. If you are taking 15 hours, working 40, raising 3 kids, and planning to run for Student Government President...join the club. You'll either have to let something go or nothing will get done. Set aside study time and be disciplined. This is the age of electronic education, so you need to stay realistic about having time to **incubate on the topic**.

## Need Blackboard Help?

Course:	<a href="#">EDF6432.691C04: Foundations Of Measurement</a>
USF Hotline Help	813-974-1222
Update for Windows:	<p><b>Windows Update Needed for Internet Explorer</b> Users experiencing difficulty logging on to myUSF, or seeing the message "HTTP 500 internal server error", should run Windows Update, and select "Critical Update for Internet Explorer 6 Service Pack 1 (KB831167)".</p> <p>For details of the problem, please review the article at: <a href="http://www.microsoft.com/downloads/details.aspx?FamilyID=254EB128-5053-48A7-8526-BD38215C74B2&amp;displaylang=en">http://www.microsoft.com/downloads/details.aspx?FamilyID=254EB128-5053-48A7-8526-BD38215C74B2&amp;displaylang=en</a>.</p>
Library help:	<p>Library Services for Distance Learners</p> <p>***Important Information for Health Sciences and USF St. Petersburg (USF SP) distance Learners***. Health Sciences Distance Learners including students at the College of Medicine, Nursing, and Public Health: Please see <a href="#">Distance Learners: Shimberg Health Sciences Library</a> for more information about library services available to you. USF SP distance learners may contact the USF SP Poynter Library staff, at 727-553-4124, for more information about distance learning library services, or see the <a href="#">Services for Distance Learners</a> web page.</p>
ACT Help Desk:	<div style="border: 1px solid black; padding: 10px;"> <p><b>ACT Help Desk</b></p> <p><a href="mailto:help-ac@usf.edu">E-mail us at help-ac@usf.edu</a> Or call 974-1222 in Tampa or 1-866-974-1222 statewide.</p> <p><b>Please Include the follow information:</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• USF NetID</li> <li>• Campus and College</li> <li>• Detailed description of problem</li> <li>• Contact information for resolution</li> </ul> <p><a href="#">Online Customer Services</a></p> <p>Find answers, ask questions...</p> </div>

## Additional Bibliography

American Education Research Association, American Psychological Association, National Council on Measurement in Education (1999). Standards for Educational and psychological testing. Washington, D. C., AERA.

Joint Committee on Standards for Educational Evaluation (2003). The Student Evaluation Standards. Thousand Oaks, CA, Corwin Press.

Popham, W. James. (1999). Classroom Assessment: What Teachers Need to Know. Boston, MA, Allyn & Bacon.

Stiggins, Richard J. (1997). Student-Centered Classroom Assessment. Columbus, OH, Prentice Hall.

Wright, B .D. & Stone, M. H. (2004). Making Measures. Chicago, Phaneron Press.

[Florida Department of Education. Florida Comprehensive Assessment Test](#)

[National Council of Measurement in Education Publications, ITEMS: The Instructional Topics in Educational Measurement Series](#)

## General Policies

### Other Expectations of Students:

*Readings. Lectures and Formative Assessments:* Your textbook has been selected because it is easy to read. You are expected to read the assigned pages from the textbook prior to the session in which they are going to be discussed.

*Team Work:* Accomplished Practice #11, Role of the Teacher, requires that teachers demonstrate their ability to work collaboratively with colleagues. Our rule is, "See one, do one, show one".

*Net Behavior:* Please respect your fellow students. We have all seen or heard of inappropriate or unwanted email, spam, unsolicited advertisements, and privacy violations. Frankly, it's hard enough to avoid the junk that most of us are bombarded with now, so please don't contribute any more. Policies and statues are sometimes vague with regard to email, but our class email and bulletin boards are intended to be used to conduct the course.

### Incomplete Grades:

If a legitimate interruption occurs and you can't complete the course, you need to make contact with the instructor before grades are submitted at the end of exam week. The instructor will make a note or contract of your timeline and intent to remove the I grade.

### Academic Dishonesty:

Students guilty of academic dishonesty (plagiarizing, copying, or other forms of theft) will receive a "double F" which will prevent them from graduating from the College of Education. Unfortunately, this has become more and more of a problem in recent years. Though rare, it's not necessary to buy, steal, or copy the work of others in order to complete this course - so don't do it.