

SAM HOUSTON STATE UNIVERSITY
Psychology 594: Psychometrics I (Fall 2007)
Tuesdays & Thursdays 11:00-12:20, AB-IV 313

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Office Hours: Tuesdays 12:30-2:30
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Course Description/Objectives: The goals of this course are that students **1) learn fundamental principles** of classical measurement theory, **2) apply these principles** to the selection, evaluation, construction, and development of valid instruments for measuring psychological constructs, and **3) disseminate relevant information via oral and written expression**. As well, students shall be expected to apply professional ethical standards in conjunction with knowledge- and skill-based material. **Note: You will evaluate the course and instruction on the bolded objectives toward the end of the semester. I'd be grateful for your ongoing feedback as to our success in meeting them!**

Required Texts:

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). *Standards for educational and psychological testing*. Washington, DC: Author.
- DeVillis, R. F. (2003). *Scale development* (2nd ed.). Thousand Oaks, CA: Sage.

Recommended Reference Text:

- Murphy, K. R., & Davidshofer, C. O. (2005). *Psychological testing: Principles and applications* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Instructor's Expectations: Psychometrics is a disciplined, active, creative domain, and students are behooved to be present, awake, and engaged in course material. I expect to be notified by phone or email as far in advance as possible if you will be absent. Besides putting you at a serious disadvantage for performing well on examinations (expect that in-class information will present on tests), excessive absences, more than 3 as defined by University policy, will result in grade deduction (5% from the final course grade for each absence thereafter). Students should be prepared to be called upon in class and to demonstrate appreciation of course concepts via written and oral communication. All written assignments, completed individually, should be submitted according to American Psychological Association (APA) style. Except under extreme circumstances and with the instructor's prior approval, students will receive no credit for late or missed assignments/examinations. Turned-on cell phones and electronic recreation devices have no place in the classroom, and they (you carrying them) may be asked to leave. Do not cheat. That is, academic dishonesty (e.g., plagiarism, which anti-plagiarism software may be used to detect; cheat sheets under baseball cap lids; and, all other sundry forms alluded to by University policy) will guarantee you a "0" and may result in formal disciplinary actions. Whew. Finally, PLEASE ENJOY!!!

Per University policy, students with a disability that affects their academic performance are expected to arrange for a conference with the instructor in order that appropriate strategies can be considered to ensure that participation and achievement opportunities are not impaired.

Per Section 51.911 (b) of the Texas Education Code, an institution of higher education excuses a student from attending classes or other required activities, including examinations, for the **observance of a religious holy day**, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. *Per University policy 861001*, a student for whom this section is relevant should present to the instructor a written statement concerning the religious holy day(s). The instructor will notify the student of a reasonable timeframe within which the missed assignments/examinations are to be completed.

COURSE SCHEDULE

Notes: Assigned readings are to be completed prior to Tuesday's class. Asterisks denote due dates for assignments (to be turned in at the beginning of class), summarized below and to be elaborated in class. Schedule and assignments are subject to change based on class progress.

Dates	Topic/Reading
August 21, 23	Introduction/Syllabus, DeVillis Ch. 1, Standards Ch. 12
August 28, 30	Measure-Construct Relationships/DeVillis Chs. 2 and 7, Standards Ch. 3
September 4, 6*	Guidelines for Scale Development/DeVillis Ch. 5
September 11, 13**	Scale Development/DeVillis Ch. 6
September 18, 20	Multi-format Comprehensive Examination 1 (9/20)
September 25**, 27	In-class Scale Development Presentations/Item Pool Peer Review
October 2, 4	In-class Scale Development Presentations/Item Pool Peer Review
October 9, 11	Reliability/DeVillis Chs. 3, Standards Ch. 2
October 16, 18	Validity/DeVillis Ch. 4/Standards Ch. 1
October 23, 25	Scale Norms and Cultural Fairness/Standards Chs. 4 and 7
Oct. 30, Nov. 1	More Reliability and Validity
November 6, 8	Multi-format Comprehensive Examination 2 (11/8)
November 13, 15	Wrapping Up
November 20**	In-class Research Reports
November 27, 29	In-class Research Reports
December 4, 6	In-class Research Reports
December 13***	Test Review Assignment turned in 11:45AM – NOON (hard deadline)

***Research Article Assignment.** Find a research article describing the development of a psychological measure, published in a peer-reviewed journal such as *Psychological Assessment* or *Assessment*. Write a 2-page summary of the a) rationale for developing measure, b) process of item selection/scale development, and c) the measure's psychometric characteristics (reliability and validity). Turn your summary in with the original article. **Due September 6.**

****Test Development Assignment.** Throughout the course, in stages corresponding to DeVillis's Guidelines (Ch. 5) and using your reviewed research article as a structural guidepost, you will develop your own psychological assessment measure. As early as possible, you should begin familiarizing yourself with the literature about your construct of interest as well as the boundaries of this construct. You are encouraged to choose a psychological construct you will enjoy exploring and to avoid grandiose ambition (e.g., designing an intelligence test). By **September 13**, you should turn in for the instructor's approval a brief description of your a) rationale for developing the measure and b) ideas for assessing the construct validity of the measure. By **September 25**, you should have prepared to turn in a) a written proposal elaborating the issues above and b) an item pool (including stems and response options, to be distributed to the class), based on which you will orally introduce your construct and items to the class (for approximately 5-10 minutes). During class on September 25, 27 and October 2, 4, following each brief student presentation, the class will peer review item pools according to the qualities discussed by DeVillis in Chapter 5, step 4. Next, you will collect data to develop and validate your measure, which may involve administering questionnaires and other activities (e.g., observing behavior), depending on the measure you are developing. Finally, you will compose a final research report, presenting and discussing the psychometric properties of your measure, the results of which will be presented to the class (for approximately 10-12 minutes). The final written report will be due on **November 20**, on which day in-class presentations will begin and continue through November 20, 27, 29, December 4, and, if needed, December 6. Presentation order will be determined during class, but each student should be prepared at the beginning of class on first possible presentation dates.

*****Test Review Assignment.** Choose a published psychological test that measures **personality or psychopathology** (not intelligence or achievement) offered for sale from a publisher such as:

- Psychological Assessment Resources (PAR; <http://www3.parinc.com>)
- Psychological Corp. (<http://harcourtassessment.com/haiweb/Cultures/en-US/default.htm>)
- Multi-Health Systems INC (<http://www.mhs.com>)

Please have the test and publisher (if it is different from these) approved by the instructor well in advance of the due date. Next, using PsychINFO available through the SHSU library, locate and evaluate 3 peer-reviewed, primary research articles (not reviews or critiques) or meta-analyses that examine the psychometric properties of the instrument. The test user's manual – if you are able to obtain a copy – is often a good source of empirical citations relating to test development and validation. Finally, incorporating this material, write a **4-6 page critique of your own view of the psychometric merit of the test**. That is, while you will want to describe the construct of interest and ascertained reliability and validity data, you will want to elaborate the instrument's value and usefulness in your own informed opinion. Even well established instruments have developmental flaws as well as assets, and utility weaknesses as well as strengths, and you will want to use what you have learned in this course to identify and discuss these. The instructor will be present in class **between 11:45 AM and NOON on December 13** to collect this assignment.

COURSE GRADES

Notes: The grading system for all assignments, exams, and final course grades will be as follows:

A range=100-90%, B range=89-80%, C range=79-70%, D range=69-60%, and F range=59-0%.

There will be a total of 100 points earned in this course, obtainable as follows:

Assignment	Maximum Points	Due Date(s)
Research Article Assignment	10	September 6
Test Development Assignment	30	September 13, 25, November 20 (final grade assigned following completion of entire assignment)
Comprehensive Examination 1	20	September 20
Comprehensive Examination 2	20	November 8
Test Review Assignment	20	December 13