

PSYCHOLOGY 320
PSYCHOLOGICAL TESTS & MEASUREMENTS
Spring 2012

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Office hours:
W 10:30-11:30, F 1-2, or by appointment

TEXT: Thorndike & Thorndike-Christ: Measurement & Evaluation in Psychology & Education, 8th Edition

ADDITIONAL READINGS: see e-reserves at library.gmu.edu

RESOURCE: Anastasi & Urbina, Psychological Testing, 1997 *Excellent* grad level resource—very comprehensive

<u>DATE</u>	<u>TOPIC</u>	<u>Thorndike & Thorndike-Christ</u>
Jan 24-26	Statistical Concepts	1, 2, 3
Jan 31- Feb 9	Reliability	4, 9 (302-304)
Restriction of range demonstration: http://onlinestatbook.com/stat_sim/restricted_range/index.html		
Feb 14-23	Validity	5, 6
Feb 24	LAST DAY TO DROP	
Feb 28	MIDTERM	
Mar 1-8	Exam feedback; Stanford-Binet	12 (374-400)
Mar 12-18	SPRING BREAK !!	
Mar 20-22	Wechsler; Individual tests	13 (skim)
Mar 27—Apr 3	Group tests/cross cultural/aptitude	12 (401-420); 8 (251-273) Neisser et al. (1996), <u>Amer. Psych.</u> <u>51</u> , 77-101; Anastasi & Urbina (475-478 & 342-346)
Apr 5-10	Interests and attitudes	14 (444-454)
Apr 12-19	Personality: Self-report inventories & Projectives	14 (459-479) 14 (455-458); Anastasi & Urbina (410-442)
Apr. 24-May 3	Secrets of Life!!	
May 10 (10:30-1:15)	FINAL EXAM	

Course Requirements

1. Mid-term [**50 pts**] plus a Final [**60 pts**]. Multiple choice with some short answer essays
2. Verbal presentation to class on test of your choice or relevant journal article (10-15 minutes in length—Limit: first 15 students to sign up)
OR participation in individual/group project (see sample topics below). [**10 pts**]
3. **10 pt.** Lab quiz. (No make-up quiz given)
4. In-class Lab work--turned in at end of each lab session [**12 pts**]
5. Homework [**15 pts**]-will be announced/distributed in lecture or through Blackboard. Late Penalty (1 pt penalty for every class period deadline missed).
6. Class participation [**10 pts**]

Honor Code

In addition to the usual honor code regulations, it will be considered a violation of the honor code to obtain or give information about specific questions from exams that I have given in previous semester in this course. Consequently, you must return your corrected exams to me.

The course as a “LEARNING COMMUNITY”

This course is an opportunity for us to establish a genuine learning community where both faculty and students learn from each other’s knowledge and experience. Such communities imply a “social contract” between faculty and students. My view of this contract is as follows:

WHAT I OWE THE CLASS

- I promise to treat you with respect, carefully listening to your questions and comments
- I promise to come to class prepared, provide structure to the course and convey a willingness to work with you in helping you master the material
- I promise to develop tests that are fair (not necessarily “easy”!) and that reflect the material covered in class.
- I promise to try to relate the material to your own experience

WHAT THE CLASS OWES EACH OTHER AND THEMSELVES

- To treat the instructor and each other with respect
- To come to class prepared to discuss/reflect on the material
 - Stay current in the readings
- To extend reasonable effort to learn the material
 - Turn in assignments on time
 - Regularly access Blackboard (but don’t let downloading the PowerPoint slides substitute for attending class!.) Note: While the PowerPoint slides available on Blackboard will outline the material covered for each topic, they will not provide the detail necessary for fully comprehending the concepts discussed in the class meetings).

Course Objective

At its core, the course is a celebration of the individual differences that underlie the wonder and mystery of human behavior. The primary objective of this course is to enable the student to critically evaluate psychological tests that assess these individual differences, and thus gain a greater appreciation of the usefulness and limitations of testing in explaining human behavior. This will be done by providing:

- (a) a fuller understanding of the statistical concepts that underlie tests and test scores.
- (b) an in-depth treatment of selected "landmark" tests.
- (c) a survey of a number of other tests covering the full spectrum of testing.
- (d) sources of professional criticism.

Grading System

Grades will be determined on the basis of performance on the mid-term (**50 points**), the final (**60 points**), the presentation/project (**10 pts**), the lab quiz (**10 points**), homework (**15 pts**), in-class lab work (**12 points**), and class participation (**10 pts**). Numerical grades on each test will be summed and converted to a letter grade. Feedback will be given so that students will know where they stand before going into the Final Exam.

In addition, Bonus Points may be earned in the following ways:

1. A separate Bonus Point Quiz (**4 points**) will be given in lab (This is a different quiz than the 10 point lab quiz).
2. Bonus Point question (**5 pts**) asked at the end of the mid-term exam
3. Additional bonus points can be earned (**up to 3pts**) by participation in psychological experiments or attending relevant colloquia. Activities that qualify for extra credit will be announced in class or will appear in the Psychology Dept's Sona System —1 pt for 1 hr (½ pt for ½ hr) of research participation . If you do not qualify or are otherwise unable to participate in announced experiments, extra credit may be earned by submitting a 1 page typewritten summary of a journal article relating to ability or personality measurement (1 summary = 1 pt.). No more than 3 extra points may be earned in these various ways (experiments, colloquia, journal summaries).

These Bonus Points will be added to your point total for the course. However, the numerical cutoffs for the various letter grades will remain unaffected by your bonus points. For example, if based on your mid-term, lab quiz, and lab assignments you are 2 points below a B and you earn 3 bonus points, you will go into the Final with a grade 1 point above a B.

Ideas for Individual/Group projects

Papers summarizing your project (~3-5 pages) are due **April 30** .

[Projects will typically involve the collection and analysis of individual difference data]

- Develop & evaluate a scale measuring one aspect of your experience as a student, e.g.:
 - satisfaction with GMU
 - conflict between work & school commitments
 - conflict between school & family commitment
- Develop & validate a scale for a psychological construct or attitude (e.g. open-mindedness, sense of humor, sports trivia, sophisticated taste, cultural disadvantage, attitudes toward tattoos, etc.)
- The relationship between general cognitive ability or big 5 personality variables with other constructs (e.g. gpa, concert attendance, leadership/membership in social organizations, above mentioned attitudes, relationship satisfaction, etc.)
- Evaluate the reliability and/or validity of a "test" that appears in the popular press (magazines, etc.) or the internet
- Construct a "scrapbook" of mass media articles on "Psychological Testing in the News" & convert it into a multimedia presentation
- Evaluate accuracy/validity of prediction of various websites (kenpom.com; USATODAY/sagarin) in

- predicting point spreads of college basketball games
- Relationship between music preferences and Big 5 (see below article)
 - Rentfrow, P. J., Goldberg, L. R., & Levitin, D. J. (2011, February 7). The Structure of Musical Preferences: A Five-Factor Model. *Journal of Personality and Social Psychology*. Advance online publication. doi: 10.1037/a0022406
 - Develop your own measure of musical preference based on the kinds of information provided in the above article
- Develop a lab exercise for the **Implicit Association Test**
 - See reference: Greenwald...&Banaji (2009), *Journal of Personality & Social Psychology*--iat meta-analysis
- Washington Post Challenge Index: Evaluation of quality of specific high schools (suitable as multi-person project)
 - Compare/correlate with % of school population that receives subsidized lunches (see: <http://apps.washingtonpost.com/highschoolchallenge/schools/2011/list/local/>)
 - identify schools in the "off"-quadrants who are over or under achieving
 - correlate with rankings using other methodologies (http://www.washingtonpost.com/local/education/alternatives-to-the-challenge-index/2011/05/12/AF3Pfm7G_story.html)
 - convergent vs discriminant validity
 - compare ratings across years (reliability)
 - identify schools that move up or down
- Correlation of GRE scores (V, Q, Analytic Writing) from data base of MA applicants
 - a. Correlate with UGPA
 - b. Correlate with usnews ranking of their university
- Parade magazine article/test of longevity: <http://www.parade.com/health/quiz/longevity.html>
- Develop self-report test of music preference based on this article:
- Compare predictions from Ken Pomeroy vs Sagarin on NCAA basketball games
- Relation between self-control and gpa. See Tangney et al. (2004) *Journal of Personality* , 271-322 for measures of self-control and a description of other self control measures.
 - Compare to correlations of Wonderlic, Ravens, self-reported SAT with gpa.

PSYC. 320 LAB SYLLABUS

Demonstration Test/Transform scores	Jan. 25
Test-retest reliability	Feb. 1
Kuder-Richardson reliability; split-half reliability	Feb. 8
<u>LAB QUIZ I-10pts</u> ; validity restricted range effect	Feb. 15
LAB QUIZ I feedback; Sample SAT/correlation with GPA	Feb. 22
"Secrets of the SAT" video	Feb. 29
Mid-term item analysis (read <u>Chap. 9, pp.304-310</u>)	Mar. 7
<u>BONUS POINT QUIZ-4 pts</u>	Mar. 21
Wonderlic/Ravens	Mar. 28

Develop Intro/Extrov items	Apr. 4
Self-report inventory	Apr. 11
Content Validity: I/E & GPP	Apr. 18
Special assignment	Apr. 25
Internet tests/Question and Answer session	May 2