



## Department of Psychology

### Psychometrics

#### Psychology 407 (L01) – Fall 2005

**Instructor:** Dr. Kibeom Lee                      **Office:** Admin 220  
**Phone:** 210-9469                                 **Office hours:** By appt.  
**E-mail:** kibeom@ucalgary.ca

**Lecture Day/Time:** Monday 5:00-7:45      **Location:** A 167

#### Recommended Text (not required):

Murphy & Davidshofer (2004). Psychological Testing: Principles and Applications (6<sup>th</sup> edition). Prentice Hall.

#### Description:

An introduction to the theory and practice of psychological measurement. Topics include the following: the evaluation of reliability and validity in psychological tests; factor analysis; psychometric principles of test construction; commonly used tests of personality, mental abilities, and interests; contemporary issues related to the use and usefulness of psychological tests.

#### Distribution of Grades:

Open Book Exam	20 pts. October, 16
Closed Book Exam	20 pts. (scheduled by registrar)
Factor Analysis Project	15 pts. November 6
Test Construction and Item Analysis Project	25 pts. December 4
Group presentation	10 pts.
Lab Attendance/Assignment	10 pts.

- 1) Assignments should be handed in class on the due date.
- 2) The penalty for late assignments will be 10% per day, including weekends.

#### Grading scale:

The following grading scale will be used to determine final course grades. However, it should be noted that grades might be "curved up" if the class performance is abnormally low. **Grades will not be curved down under any circumstances.**

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

Note: To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (i.e., 89.5% will be rounded up to 90%; 89.4% will be rounded down to 89%, etc.).

### University of Calgary Curriculum Objectives

Based upon the structure and content of this course, the following **Core Competencies** are addressed:

1. Insight and intuition in generating knowledge
2. Critical and creative thinking
3. Effective oral and written communication
4. Abstract reasoning and its applications
5. Interpretive and assessment skills

### Lecture Schedule

DATE		
Sept. 11	Course Instruction and Basic statistic	
Sept. 18	Reliability (Chapters about Reliability in any psychological testing text books) Validity (Chapter about validity in any psychological testing text books)	
Sept. 25	Reliability (Chapters about Reliability in any psychological testing text books) Validity (Chapter about validity in any psychological testing text books)	Group sign up day for presentation
Oct. 2	Factor Analysis (Bobko's Chapter, pp. 655-667)	
<b>Oct. 9</b>	<b>Thanksgiving Day – no classes</b>	
Oct. 16	Open Book Exam (2 hours; 5:00 – 7:00)	
Oct. 23	Test Construction /Item Analysis (Burisch article) and Introduction to the Test Construction and Item Analysis Project (Handout)	
Oct. 30	Structure and Measurement of Personality (McCrae & John; Ashton, et al, in press; Boies et al)	
Nov. 6	Response set & Response Style (Jackson et al. article; Nunnally's Chapter 16, pp. 658-677)	Factor analysis paper due
<b>Nov. 13</b>	<b>Reading Days – No Classes</b>	
Nov. 20	Structure and Measurement of Intelligence (Neisser et al article)	
Nov. 27	Student presentation (2 groups)	
Dec. 4	Student Presentation (2 groups)	Item analysis paper due
<b>Dec. 11-20</b>	<b>Fall Session Final Examinations</b>	

**NOTE: The above schedule may be modified from time to time as circumstances warrant. Students will be advised of any changes that are made.**

## Readings

\*\*\*Bobko, P. (1990). Multivariate Correlational Analysis. In M. Dunnette and L. Hough (eds.), Handbook of Industrial and Organizational Psychology (vol. 1). Palo Alto: Consulting Psychologists. (pp. 655-667 only)

Burisch, M. (1984). Approaches to personality inventory construction: a comparison of merits. American Psychologist, *39*, 214-227.

McCrae, R. R., & John, O. P. (1992). An introduction to the Five-Factor Model and its applications. Journal of Personality, *60*, 175-215.

Ashton, M. C., Lee, K., Perugini, M., Szarota, P., De Vries, R. E., Di Blas, L., Boies, K., De Raad, B. (2004). A six-factor structure of personality-descriptive adjectives: solutions from psycholexical studies in seven languages. Journal of Personality and Social Psychology *86*, 356-366.

Boies, K., Lee, K., Ashton, M. C., Pascal, S., Nicol, A. A. M. (2001). The structure of the French personality lexicon. European Journal of Personality, *15*, 277-295.

Jackson, D. N., Wroblewski, V. R., & Ashton, M. C. (2000). The impact of faking on employment tests: Does forced-choice offer a solution? Human Performance, *13*, 371-388.

\*\*\*Nunnally, J. C. (1978). Chapter 16, pp. 658 – 677. Psychometric Theories. McGraw-Hill. (pp. 658-677 only)

Neisser et al. (1996). Intelligence: Knowns and unknowns. American Psychologists, *51*, 7-101.

\*\*\* These articles are not available electronically.

### Reappraisal of Grades

A student who feels that a piece of graded term work (term paper, essay, test, etc.) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within fifteen days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next fifteen days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same.

If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within fifteen days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

## **Plagiarism and Other Academic Misconduct**

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

## **Academic Accommodation**

*It is the student's responsibility to request academic accommodations.* If you are a student with a documented disability who may require academic accommodation and **have not** registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

## **Absence From A Test**

Make-up exams are NOT an option without an official University medical excuse (see the University Calendar). You must contact the instructor before the scheduled examination or you will have forfeited any right to make up the exam. At the instructor's discretion, a make-up exam may differ significantly (in form and/or content) from a regularly scheduled exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup exam is written within two (2) weeks of the missed exam.

A completed Physician/Counselor Statement will be required to confirm absence from a test for health reasons. The student will be required to pay any cost associated with the Physician Counselor Statement.

## **Course Credits for Research Participation**

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. A maximum of two credits (2%) per course, including this course, may be applied to an individual's final grade. Students can create an account and access the Research Participation System website at <http://ucalgary.sona-systems.com>. The last day to participate in research is December 7, 2006.

## **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in the Administration building, room 170 or may be contacted at 220-5567.

**Student Union VP Academic:** Phone: 220-3911 [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)  
**Student Union Faculty Rep.:** Phone: 220-3913 [socialscirep@su.ucalgary.ca](mailto:socialscirep@su.ucalgary.ca)

## **Important Dates**

The last day to drop this course and **still receive a fee refund** is September 22, 2006. The last day to withdraw from this course is December 8, 2006.