



Department of Psychology
Psychology 407 (L01) – Psychometrics
Fall 2011 – Course Outline

Instructor:	Theresa Kline	Lecture Location:	Administration 253
Phone:	403-220-3469	Lecture Days/Time:	M/W/F 10:00 – 10:50
Email:	Babbitt@ucalgary.ca	Lab Days/Time/ Location	T 11:00 – 12:50 R 11:00 – 12:50 SS 018
Office:	Administration 135B		
Office Hours:	To Be Announced		

Course Description and Goals

Theory and application of methodological and statistical issues in psychological assessment. Topics include: theories of psychological measurement, scale development, item analysis, item bias, reliability, validity, and test fairness.

Aims of Psychology 407

- A. Introduce psychometric concepts and emphasize their importance in testing and evaluation.
- B. Familiarize students with types of tests.
- C. Understand how to accurately assess the psychometric properties of particular tests.
- D. Be confident in using statistical software in establishing some of the psychometric properties of tests.

Learning Goals

1. Understand the use of psychological tests and measures.
2. Know major societal events that influence the testing industry.
3. Know the protocol for test item design.
4. Know when to use different response options.
5. Understand the importance of sampling and generalizability.
6. Assess items on a test for various characteristics.
7. Assess items for bias.
8. Know the types and how to conduct the appropriate analyses for test reliability.
9. Evaluate the reliability of a test.
10. Know the types and how to conduct the appropriate analyses for test validity.
11. Evaluate the validity of a test.
12. Articulate the major professional and societal issues and concerns over psychological testing.

Prerequisites

Psychology 312 - Experimental Design and Quantitative Methods for Psychology

Required Text

Kline, T.J.B. (2005). *Psychological Testing: A Practical Approach to Design and Evaluation*. Thousand Oaks, CA: Sage. (Available in the University Bookstore)

A required package of notes for this course is available at the Department of Psychology.

Evaluation

The course grade will be based on five quizzes, a paper, and five laboratory assignments. The paper will count for **20%** of your grade. Papers are due **December 16th, 2011 by 4:00 p.m.** and must be in hard copy form. They can be turned in at the Department of Psychology Office in Administration 275. Papers received after the due date will be reduced 10 points (out of 100) for each day they are late. There are NO exceptions to this. The document should conform to APA style and be 10 pages in length. A marking scheme will be handed out to let you know how the paper grading will be handled. Quizzes will cover material in the text as well as lecture material that is NOT covered explicitly in the text. Laboratory assignments and expectations will be covered in your first lab.

Distribution of Credit for Final Grade:

First quiz:	11%
Second quiz:	12%
Third quiz:	12%
Fourth quiz:	10%
Fifth quiz:	10%
Paper	20%
Lab Assignments:	25% (grade will be based on five assignments)

Quizzes are multiple-choice format and NON-Cumulative. Calculators are permitted during quizzes. Laboratory assignment format is covered in the lab outline.

Students must achieve a passing grade on both the class and lab components to pass this course.

Grading Scale

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%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades.

To determine final letter grades, final percentage grades will be rounded up to the nearest whole percentage (e.g., 89.1% will be rounded up to 90% = A).

Tentative Lecture Schedule

Date	Topic/Activity/Readings	Chapter
M Sep 12	The Testing Enterprise. <i>Lectures Begin.</i>	1
W Sep 14	Review of Correlation & Regression	1
F Sep 16	Review of Correlation & Regression	1
M Sep 19	Review of Correlation & Regression	1
W Sep 21	Designing and Writing Items and Responses	2
F Sep 23	Designing and Writing Items and Responses <i>Last day to drop a course with no W grade and tuition refund.</i>	3
M Sep 26	Collecting Data: Samples and Sampling Issues <i>Last day for registration/change of registration.</i>	4
W Sep 28	Collecting Data: Samples and Sampling Issues	4
F Sep 30	Quiz 1	
M Oct 3	Classical Test Theory	5
W Oct 5	Classical Test Theory	5
F Oct 7	Classical Test Theory	5
M Oct 10	<i>Thanksgiving Day. No lecture. University closed.</i>	6
W Oct 12	Modern Test Theory (dichotomous data)	6
F Oct 14	Modern Test Theory (dichotomous data)	6
M Oct 17	Modern Test Theory (dichotomous data)	6
W Oct 19	Modern Test Theory (polytomous data)	6
F Oct 21	Modern Test Theory (polytomous data)	6
M Oct 24	Modern Test Theory (polytomous data)	6
W Oct 26	Quiz 2	
F Oct 28	Reliability (tests & items)	7
M Oct 31	Reliability (tests & items)	7
W Nov 2	Reliability (raters)	8
F Nov 4	Reliability (raters)	8
M Nov 7	Reliability (raters)	8
W Nov 9	Quiz 3	
F Nov 11	<i>Reading days. No lecture.</i>	
M Nov 14	Content and Criterion-Related Validity Approaches	9
W Nov 16	Content and Criterion-Related Validity Approaches	9
F Nov 18	Content and Criterion-Related Validity Approaches	9
M Nov 21	Content and Criterion-Related Validity Approaches	9
W Nov 23	Content and Criterion-Related Validity Approaches	9
F Nov 25	Internal Structure Validity Approaches	10
M Nov 28	Internal Structure Validity Approaches	10
W Nov 30	Internal Structure Validity Approaches	10
F Dec 2	Quiz 4	
M Dec 5	Ethics and Professional Issues	11
W Dec 7	Ethics and Professional Issues/Test Reviews	11/12
F Dec 9	Quiz 5 <i>Last day to participate in research and allocate research credits. Lecture ends. Last day to withdraw.</i>	

Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 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 15 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 15 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 403-220-8237. 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 14 days after the start of this course.

Absence From A Test/Exam

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

Freedom of Information and Protection of Privacy (FOIP) Act

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or via the Department Office (Admin 275), or will be made

available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

Course Credits for Research Participation (Max 2% of final grade)

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 the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Dec 9th, 2011.**

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at <http://www.ucalgary.ca/emergencyplan/assemblypoints>. Please check this website and note the nearest assembly point for this course.

Student Organizations

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 170 and may be contacted at 403-220-5567.

Student Union VP Academic: Phone: 403-220-3911 suypaca@ucalgary.ca

Student Union Faculty Rep.: Phone: 403-220-3913 socialscirep@su.ucalgary.ca

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Sep 23rd, 2011.** Last day for registration/change of registration is **Sep 26th, 2011.** The last day to withdraw from this course is **Dec 9th, 2011.**