PSYC*7070, Course Outline: Winter 2017

General Information

Course Title: PSYCHOLOGICAL MEASUREMENT

Course Description:

Psychology 7070 covers measurement theory (classical test theory and item response theory), exploratory, and confirmatory factor analysis, and structural equation modeling. The course is designed for future practitioners and researchers. For future practitioners the course is intended to provide a background in psychometric methods that is necessary for the appropriate use of psychological tests and measures. For researchers, the course will illustrate the importance of taking measurement issues into account when conducting research as well as provide students with skills and knowledge to conduct a variety of useful psychometric analyses.

Credit Weight: .50
Academic Department (or campus): Psychology
Semester Offering: Winter
Class Schedule and Location: Thursday, 11:30-2:20, in ROZH 109.

Instructor Information

Instructor Name: David Stanley
Instructor Email: dstanley@uoguelph.ca
Office location and office hours: See website profile.

Course Content

1. Develop an in-depth understanding of Classical test theory.
2. Compute and appropriately interpret evidence for reliability and validity.
3. Acquire an understanding of different test construction strategies and their implications for research and practice.
4. Understand how to properly interpret individual test scores and understand factors that influence their accuracy and validity.
5. Conduct and interpret exploratory factor analysis.
6. Conduct and interpret confirmatory factor analysis.
7. Acquire an introductory knowledge of structural equation modeling, including understanding model fit, model comparisons, model identification, and proper interpretation latent and structural models**.**

Lecture Content:

Unit 1: Scale Development, Classical Test Theory, Item Analysis, Generalizability Theory (Tested on the Midterm)

Unit 2: Common Method Variance, Exploratory Factor Models, Confirmatory Factor Models (Tested on the non-cumulative Final Exam)

Course Assignments and Tests:

Assignments:

Assignments (25%): There will be approximately 5 assignments throughout the term (each worth 5%). The assignments are intended to give you hands on experience applying the statistical techniques learned in the course. At the class session when the assignment is due, the assignments will be taken up in class. Please make two copies of your assignments: one copy to be turned in at the **beginning of class**, and the other copy to be retained by you to serve as a basis for class discussion. When turning in assignments it is important that the final product is **your own work**. These are not group assignments and must be completed individually. If you have any questions regarding this issue please ask the instructor or consult the University of Guelph's policy on cheating and academic misconduct.

Exams:

Midterm Exam (30%): Thursday February 24

The midterm will be written in class and will be based on all the material covered in lecture and in the assigned readings relevant to learning outcomes 1 to 4 (i.e., Unit 1).

Final Exam (30%): Thursday April 6

The final exam will be based on all material covered in lecture and in the assigned readings relevant to learning outcomes 5 to 7 (i.e., Unit 2)

Material evaluation:

Material-evaluation (10%): At the final exam, students will turn in a compilation of all their course notes, readings, and completed assignments.

Self evaluation:

Self-evaluation (5%): At the final exam, students will provide a self-evaluation of their own performance. This assessment should reflect students' perception of their effort in the course, engagement in the material, and mastery of the course content.

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed (see Course Content)
Midterm (unit 1)	**Feb 24**	**30**	**1,2,3,4**
Final Exam (unit 2)	**April 6**	**30**	**5,6,7**
Assignments	**As needed.**	**25**	**1-7**
Material evaluation	**April 6**	**5**	**1-7**
Self evaluation	**April 6**	**10**	**1-7**

Course Resources

Suggested Text Resource:

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. New York, NY:

The Guilford Press.

Other Resources:

Course Website: On CourseLink. This website will contain announcements, lecture notes, discussion, and other information pertinent to the course.

Course Policies

Grading Policies

Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may

be asked to resubmit work at any time.

Policy on Late Assignments:

All assignments are due on the date and time specified **unless prior arrangements have been made with the instructor**. All overdue assignments that are received late, and without prior arrangement will be subject to a penalty of 20% per day of the assignment grade, up to a maximum of 100%. Late submissions for the poster conference cannot be accepted.

Please note that these policies are binding unless academic consideration is given to an individual student.

Course Policy regarding use of electronic devices and recording of lectures:

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

University Policies

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration:

Academic Consideration, Appeals and Petitions

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:
Academic Misconduct Policy

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Students Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email accessibility@uoguelph.ca or see the website: Student Accessibility Services Website

Course Evaluation Information

Please refer to the Course and Instructor Evaluation Website **.**

Drop date

The last date to drop one-semester courses, without academic penalty, is ***March 10, 2017*** . For regulations and procedures for Dropping Courses, see the Academic Calendar:
Current Undergraduate Calendar