

PSYC*3250, Course Outline: Winter 2018

General Information

Course Title: Psychological Measurement

Course Description:

This course is an introduction to the theory of psychological measurement and measurement procedures presently used in psychology. Coverage will include such topics as reliability, validity, test construction, and the measurement of ability and personality. You will learn not only how to evaluate psychological tests and measures, but also construct and refine your own. This knowledge is essential for both future practitioners and researchers in the area of psychology.

Credit Weight: 0.5

Academic Department (or campus): Psychology

Semester Offering: W18

Class Schedule and Location: M/W/F 10:30am to 11:20am ROZH 103

Instructor Information

Instructor Name: Dr. Karly Neath-Tavares
Instructor Email: kneathta@uoguelph.ca
Office location: MacKinnon 545
Office hours: Monday 11:30am to 1:00pm

GTA Information

Denisa Luta: dluta@uoguelph.ca
Eli Cwinn: ecwinn@uoguelph.ca
Alexandra Chris: achris@uoguelph.ca
Julia Stewart: jstewa02@uoguelph.ca

GTA office location and office hours: To be announced on CourseLink.

Course Content

Specific Learning Outcomes:

1. Evaluate the appropriateness of different psychological measurement approaches and rejects less acceptable methods to solving the problem. (Problem Solving)

2. Evaluate the accuracy and quality of data generated and analyses used by others (Quantitative Literacy)
3. Understand the use of numerical data. (Quantitative Literacy)
4. Demonstrate ability to interpret data/scores. (Quantitative Literacy)
5. Demonstrate a skill set in contemporary software programs and technological formats to serve a variety of functions (e.g., word processing, presentations, data analysis). (Technological Literacy)
6. Write with appropriate vocabulary, APA style adherence, proper referencing, and little grammatical, spelling or functional errors. (Written Communication)
7. Write in a sophisticated manner clearly conveying the message of the writer to a target audience. (Written Communication)
8. Conduct research in a manner congruent with ethical regulations (Ethical Issues in Research)

Lecture Content:

The table below lists the content of the lectures and the associated readings from the text.

Please note that these dates are tentative. Although exam dates will not change, it is possible that it may take more or less time to cover the various topics in a given year. Please refer to CourseLink regularly for any changes to the schedule. Note: All quizzes are to be completed online (CourseLink) and will be available during the start of class on the Friday of the scheduled week and are due by 11:59pm that day.

Week	Date	Lecture	Readings	Material Due
1	Jan 8	Course overview and "How Important is it"?- An introduction to the importance of psychological measurement		
1	Jan 10	Introduction to Testing	Chapter 1: Tests and measurements	
1	Jan 12	Standards and Ethics	Chapter 3: Testing and society	
2	Jan 15	Downloading SPSS and Overview of Scale Development Project/Group Formation		

2	Jan 17	Basic Concepts in Measurement and Statistics	Chapter 4: Basic concepts in measurement and statistics	
2	Jan 19	Scales, Transformation and Norms	Chapter 5: Scales, transformations, and norms	Online Quiz #1 (2%) due by 11:59pm
3	Jan 22	Test Development	Chapter 11: The process of Test Development	Group Enrolment Due
3	Jan 24	Classical Test Theory and Reliability	Chapter 6: Reliability: The consistency of test scores	
3	Jan 26	Construct definition and scale creation workshop		Online Quiz #2 (2%) due by 11:59pm
4	Jan 29	Construct definition and scale creation workshop		
4	Jan 31	Using and Interpreting Information about test reliability	Chapter 7: Using and interpreting information about test reliability	
4	Feb 2	Validity of measurement	Ch. 8: Validity of measurement: content and construct-oriented validation strategies	Construct definitions and items due in class (10%) *Please submit two copies: one electronic copy in the group discussion Dropbox folder and one hard copy in class Online Quiz #3 (2%) due by 11:59pm
5	Feb 5	Validity of measurement	Ch. 8: Validity of measurement: content and construct-oriented validation strategies.	
5	Feb 7	Validity for decisions	Ch. 9: Validating for decisions: Criterion-related validity	
5	Feb 9	Validity for decisions	Ch. 9: Validating for decisions: Criterion-related validity	
6	Feb 12	Construct Definition Feedback		
6	Feb 14	Midterm Review		
6	Feb 16	Midterm: Covers everything to date		Midterm 25%
7	Feb 19		No class: Reading week	

7	Feb 21		No class: Reading week	
7	Feb 23		No class: Reading week	
8	Feb 26	Item Analysis	Chapter 10: Item analysis (for binary scales)	
8	Feb 28	Item Analysis	Chapter 10: Item analysis (for binary scales)	
8	Mar 2	In-class data collection		Bring pencil and ~50 copies of scale
9	Mar 5	In-class data collection		Bring pencil and ~50 copies of scale
9	Mar 7	In-class entering data using excel		Bring Laptop
9	Mar 9	In-class data analysis example using SPSS In-class Quiz 4		Bring Laptop In class Quiz #4 (2%) due by 11:59pm
10	Mar 12	In-class data analysis using SPSS		Bring Laptop
10	Mar 14	In-class data analysis using SPSS		Bring Laptop
10	Mar 16	Class time to work on project In-class Quiz 5		Bring Laptop In class Quiz #5 (2%) due by 11:59pm
11	Mar 19	Class time to work on project		Bring Laptop
11	Mar 21	Class time to work on project		Bring Laptop
11	Mar 23	Ability Testing	Chapter 16: Issues in ability testing	Individual Scale Development Report Due (25%) in class
12	Mar 26	Ability Testing	Chapter 16: Issues in ability testing	
12	Mar 28	Personality Testing	Chapter 17: Personality testing	
12	Mar 30	No Class: Good Friday		
13	Apr 2	No Class: Easter Monday		
13	Apr 4	In-class Quiz		In-class Quiz #6 (2%) due by 11:59pm

13	Apr 6	Review for final examination		
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Labs: None
Seminars: None

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Online Quizzes	Online quizzes/assignments due by 5pm on the Friday of that week	5 @ 2% = 10% Best 5 of 6 quizzes taken	1 – 8
Midterm	February 16 th . Covers chapters 1,3,4,5,11,6,7,8,9	25%	1 – 8
Scale Development Project	Feb 2: Construct Definitions and Scale Items. Due in-class. Mar 23: Individual Scale Development report. Due in-class.	35% Construct Definitions and Scale Items (10%). Individual Project Report (25%).	1 – 8

Final examination date and time: Tuesday April 10th, 2017 from 11:30AM - 1:30PM

Final exam weighting: 30%

[Examination Regulations](#)

Requirements for the Scale Development Project (30%)

A major component of the course involves creating your own psychological measure. The purpose of this project is to give you hands-on experience creating a psychological questionnaire, analyzing psychometric data, and writing up psychometric findings. You will work in groups of 3-5 people to create a questionnaire designed to measure a psychological construct of your choice.

Data will be collected during class time with PSYC 3250 students acting as research participants. The Construct Definitions and Scale Items Report (10%) is a group report that is to be submitted by your group. Each member of the group will receive the grade the group received. The data

analysis must be done individually and the final write-up is an individual assignment. The requirements and grading breakdown are outlined below.

IMPORTANT NOTE: Your scales must NOT (a) involve any personal, sensitive or incriminating topics or questions that could place participants at risk, (b) manipulate behavior of participants beyond the range of “normal” classroom activity or daily life, (c) involve any physically invasive contact with the research participants, or (d) involve deception.

1. **Construct Definition and Scale Items Report (10%).** Your group is required to submit one report (one report per group) in-class on February 2nd. Late assignments will receive a grade on zero. The report is to be in 12pt font and double spaced. The report should consist of
 - a. a brief summary of the construct definition including the domain specification and justification (maximum of one-page double spaced max)
 - b. the items and scale (formatted as if you were using it to collect data).
 - c. the informed consent letter
2. **Data Collection (not graded).** Using your revised scale items and consent letter (from feedback provide from the above, you will collect your data in class on March 2nd and March 5th. You will need to collect data from a minimum of 50 classmates. Data collection is anonymous and voluntary but strongly encouraged so that groups will have data to analyze. There is no penalty for not participating in data collection.
3. **Data Analysis (not grade).** Using the data collected, you will be required to individually analyze the data for your scale. Class time is provided to work on your analysis.
4. **Individual Scale Development Report (25%).** You will individually write a scale-development style report based on the scale you created and data you collected in class. This manuscript will include an introduction, methods, and results/discussion section. You are not required to include a literature review. Further details on the exact format of this paper will be provided in a separate handout. Although data is collected as a group, it must be analyzed individually and the report must be written individually.

Course Resources

Required Texts:

Murphy, K.R. & Davidshofer, C.O. (2004). *Psychological Testing: Principles and Applications. Sixth Edition.* Pearson Education, Canada.

Note: A copy of this text has been placed on two hour reserve at the library.

Recommended Texts: None

Lab Manual: None

Other Resources: SPSS 25 for Data Analysis

Field Trips: None

Additional Costs: None

Course Policies

Grading Policies

1. **CLASS:** To be successful at this course, it is strongly recommended that you attend all lectures. You are responsible for reading the assigned textbook material prior to attending class. Although the lectures will follow the textbook, they will not necessarily cover all of the material in the chapters. Additionally, material not found in the textbook may also be covered during the lecture.
2. **CALCULATOR:** Bring a stand-alone calculator to each class, midterm and the final examination. **Mobile phones and applications will not be permitted for use as a calculator for tests or the final examination.**
3. **QUIZZES:** All quizzes are to be completed online through CourseLink. Each quiz will be made available during class time the day indicated in the schedule and will be due by 11:59 pm that day. If you do not complete a quiz within the given time, you will be given a grade of zero for that quiz.

There are no make-up quizzes or shifting of missed quiz grades. The best 5 of 6 quizzes will be counted toward your final grade.

4. **MIDTERM:** There will not be a make-up for a missed mid-term. Academic consideration will be provided for documented requests for medical, psychological or compassionate reasons as defined in the university guidelines. Note, you will need to provide the appropriate documentation to your instructor. Academic consideration for missing the midterm will consist of spreading the weight (25%) as follows:
 - a) 10 of the 25 percentage points will be added to the online quizzes.
 - b) 10 of the 25 percentage points will be added to your Scale Development Project.
 - c) 5 of the 25 percentage points will be added to your final exam.

5. FINAL EXAMINATION

[Undergraduate Grading Procedures](#)

Course Policy on Group Work:

Each student is expected to complete the quizzes, midterm, the data analysis, the final scale development project, and final examination on their own. If there is evidence that students are

collaborating while completing the quizzes, tests, and/or final examination, then those cases will be dealt with as per the regulations on Academic Misconduct.

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 [Student Accessibility Services](#) as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 54335 or email accessibility@uoguelph.ca or the [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 Friday March 9th, 2018. For regulations and procedures for Dropping Courses, see the [Schedule of Dates in the Academic Calendar](#), [Current Undergraduate Calendar](#)