

**PSY 330H1 Psychological Measurement**  
**Thursdays from 10:00 am-1:00 pm. Online for January, 2022.**  
**In person in starting February 1, 2022 in SS1074 {Sidney Smith, First Floor}.**  
**Instructor and Teaching Assistant Information**

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**Instructor:**

Amanda Sharples, Ph.D.  
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**Instructor Office hours:**

Online Mondays and Wednesdays. Please book through the calendar on the Quercus site.

**Teaching Assistant**

Kyle Nealy  
[kyle.nealy@mail.utoronto.ca](mailto:kyle.nealy@mail.utoronto.ca)  
office hours: by appointment

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**Course Description and Objective**

How do we develop valid and reliable psychological measures?

What is the difference between measures of abilities, personality, and clinical conditions?

What should we consider when developing measures for constructs in psychological research?

What are some advanced statistical methods that are important to understand?

This course will focus on answering the questions above. These questions are essential to understanding how we assess individual differences and how we create valid and reliable measures to capture constructs of interest in psychological research. We will focus on developing a solid understanding of both psychological measurement for research and psychological assessment across domains including personality, education, and mental health.

**Learning Objectives:**

- By the end of this course, you should understand the process of scale development from beginning to end

- By the end of this course, you should be able to think critically about the way we operationalize constructs in psychological research
- By the end of this course, you should have a solid understanding of reliability and validity, the difference between the two, and why these are so important to the development of psychological measures.
- By the end of the course you should understand the basics of how to administer a psychological assessment and ethical practices.
- By the end of this course, you should have improved your time-management skills and ability to respond appropriately to constructive feedback.

**Class Structure:** Classes will consist of lecture videos for the month of January. Starting February, it is currently assumed that we will move to in person learning. This may change, in which case the format we used in January will continue to apply.

**For the month of January - this is the class structure:**

**Asynchronous Lectures:** Lectures will be broken down into short (10-30 minute) videos. These will be posted weekly by the end of the day Monday starting January 10th. Please try to watch each lecture before the next lecture is posted so that you do not fall behind. I chose to make lectures asynchronous as I recognize that many students will struggle to attend a synchronous lecture due to various stressors including work, issues with internet connectivity, and being in a different time-zone. Moreover, issues with internet connectivity could disrupt the lectures and reduce clarity.

**Synchronous Discussions:** We will meet each Thursday at 12:00pm starting Thursday, January 20th. These meetings will be held via zoom and will not be recorded as it is just an opportunity for us to connect, ask questions, and work through activities together and none of what is covered is mandatory. If we move to in person learning, these will end and we will simply have these discussions in class. As long as we remain online, these meetings will continue.

**After January:**

**The current assumption is that we will return to in person learning starting February 1st, 2022.** It is possible this will change. If we need to remain online, class structure will remain the same as it is set-up for January. If we do return to in-person learning, we will meet on Thursdays from 10:00am-1:00pm in SS1084 (Sidney Smith, first floor). Classes will be primarily lectures with some activities and discussion throughout.

**Note about prerequisites:** It is your responsibility to ensure that you have met **all** prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites you **WILL BE REMOVED**. No waivers will be granted.

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## Course Resources

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### Required Readings

**Assigned Empirical Articles and Chapters:** See lecture schedule. All articles have been made available on Quercus by the University of Toronto Library. The textbook is open-source will be linked under the syllabus section of the course website. The link can also be found below

<http://noba.to/r39z2jca>

This will be made available in print. Once it is approved, I will provide the link on the course website.

**Quercus:** All course materials will be made available on the Quercus website, including lecture slides, lecture videos, announcements, and supplementary materials. You are advised to regularly check the announcements section of the Quercus website because you are solely responsible for staying on top of all course announcements made through Quercus.

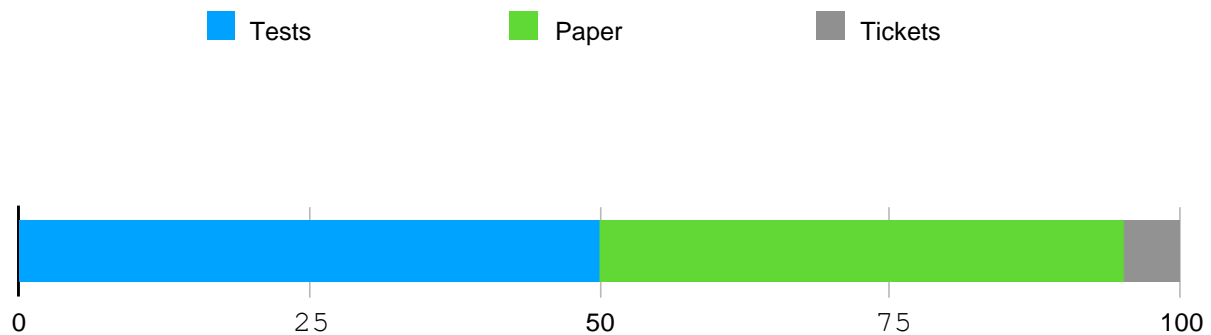
**Ongoing feedback:** I've created a survey that students can fill out anonymously after each class to provide me with feedback on lectures. This gives you the opportunity to let me know if I am going through the material too quickly, if there is a particular concept you are really struggling with, if there is something that could be improved about the structure of each class, etc. The link to this survey is available on Quercus. I can't promise that I will be able to touch on every concern expressed in the feedback surveys. I will be looking for common concerns being expressed by students.

**How to get help with the course:** The fastest way to get help with the course is to book a student hour with me. If you have a short question that can be answered via email, then please email myself or the TA. Before emailing, however, please check the course syllabus as most of the important information about the course can be found there.

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## Course Evaluation

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<i>Component</i>	<i>Date</i>	<i>Weight</i>
Muddiest Point Tickets	Each week. 7 total	5%
Assignment Outline	Feb 10	10%
Midterm Take-home Assessment	Feb 14 to Feb 17	25%
Final Assignment	Mar 31	35%
Final Take-home Assesment	Apr 4 to 7	25%

**Muddiest Point Tickets:** Each week (except the 1<sup>st</sup> day of class and test weeks), you are to write out one point from lecture or the readings that you found confusing or would like to discuss further. You will submit your muddy point via Quercus before the end of the day that Thursday (by 11:59pm). These will be marked for completion only, but it must be clear that your point related to the topic being discussed in class that week for you to receive a mark. If you are not able to attend synchronous sessions to share your point, that is fine, but please still come up with one and submit this. You may also skip 1 week - so you can decide to not write a muddy point for one of the lectures. This means that you will submit a total of 7 muddy point tickets.

**Final Paper:** For this course, you will have to complete a final assignment. For this assignment, you will develop a scale to measure a psychological construct of interest. This measure must have multiple items on it and be hypothesized to measure multiple factors. You will explain how you will develop the measure, determine reliability and validity, how many factors you expect to emerge, and how you will statistically determine these.

**Outline:** Before submitting the final paper, you will submit an outline. This will allow you to get feedback on your scale idea and process for developing the scale. For the outline, you must include a description of the construct you are measuring, hypotheses about what factors will emerge, some example items for each factor, and bullet point summary of how you will validate the measuring. **This should be about 1.5-2 pages, double-spaced. Do not go over the 2 page limit - we will stop reading past this point.**

**Final Paper:** The final paper should include an introductory paragraph where you describe this psychological construct and why it is important to measure, 1-2 paragraphs explaining how you will develop it, making reference to the final scale (the entire final scale should be included in the appendix), 1-2 paragraphs explaining how you validated the scale, determined the constructs, and determined reliability, and 1-2 paragraphs reiterating the theoretical and practical implications of creating this scale. **This should be a total of 5-6 pages, double-spaced. Do not go over the 6-page limit - we will not read past this point.**

**A few important details:** Any citations should be in APA style and there should be a reference list at the end. Both the outline and the final paper should be handed in on Quercus by 11:59pm on the day they are due.

More details on these assignments will be provided in the assignment video, which will be posted under the outline and the final paper.

**Policy on Lateness:** The Covid 19 pandemic has impacted all of our lives in various ways, and I understand that some of you may be facing many additional stressors as a result of this. I understand this and am happy to support you and work with you so that you can successfully complete this course and have a positive learning experience. For the proposal outline and the final paper, you do not need to contact me so long as your assignment is submitted within 24 hours of the due date. Following this, a 2% late penalty may apply. If you are concerned about meeting a deadline or need assistance making a plan for getting work completed, please contact me as soon as you can so we can work this out together.

**Term Tests:** There will be two take-home tests over the course of the semester. The tests will be comprised of short, medium, and long answer questions. Although you will have almost a week (4 days) to complete each in-class test, both the midterm and the final test should not take you longer than three hours to complete, so plan to spend about that much time on them. The final test is not cumulative. I will provide some example questions and a rubric (which will be fairly holistic) so that you understand how you will be graded.

**Missed Tests.** If you miss a deadline for a test, please contact me right away so we can work out a make-up test.

**Contesting your grade:** Please think carefully before contesting your grade for an assignment or test. Your course instructors and TAs work very hard to mark course assignments and exams as fairly as possible. If you have concerns about how an assignment was graded, you need to submit an official re-grade request form explaining why you think your assignment should be re-graded. This can be found on Quercus under "course materials." You must send this to the person that graded your assignment (either myself or the TA) within 1 week of receiving your grade. We will review your request but reserve the right to remark the entire paper, which means you could lose marks in other sections.

If there has been a calculation error, please just let myself or the TA know and we will re-calculate your grade immediately.

### **Academic Resources**

**Accessibility Needs:** Students with diverse learning styles and needs are welcome in this course, and we will do everything in our power to ensure that all students have equal opportunities to succeed in the course. If you have a disability/health consideration that may require accommodations, please feel free to approach me and/or Accessibility Services at (416) 978 8060; [accessibility.utoronto.ca](http://accessibility.utoronto.ca).

**Writing:** As a student here at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help them achieve this. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>. More info on writing resources available at U of T will be posted on Quercus. I highly recommend that you make use of these. Moreover, I'm more than happy to give you feedback on your writing during my office hours, so feel free to stop by.

**Academic Integrity and Plagiarism:** Academic misconduct will be taken very seriously in this class. Cheating and plagiarism will not be tolerated and will be reported through the official university channels. Please refer to the University of Toronto's Code of Behaviour on Academic Matters for more information about what constitutes academic misconduct and how academic misconduct will be dealt with: <http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf>

**Resources for Distressed Students:** As a student, you may experience challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation, financial concerns, family worries and so forth. These factors may affect your academic performance and/or reduce your ability to participate fully in daily activities. All of us benefit from support and guidance during times of struggle; there is no shame in needing help or in asking for help. There are many helpful resources available through your college Registrar or through Student Life ([studentlife.utoronto.ca](http://studentlife.utoronto.ca) and [www.studentlife.utoronto.ca/feeling-distressed](http://www.studentlife.utoronto.ca/feeling-distressed)). An important part of the University experience is learning how and when to ask for help. Please take the time to inform yourself of available resources and do not hesitate to seek assistance from your Teaching Assistant or from me to help learn what supports are available.

## Lecture Schedule

I will try my best to stick to this outline, but changes may be made. Changes will be announced on Quercus. All readings can be found in reference list following this page.

Lecture	Date	Topics	Notes
L1	Jan 13	Introduction: What is Psychological measurement and why is this important?	
L2	Jan 20	How do we develop measures and assessments?	
L3	Jan 27	Norms and Reliability	
L4	Feb 3	Vailidity	
LS	Feb 10	Measuring Personality and Individual Differences	
	Feb 17	<b><i>Midterm Assessment</i></b>	
	Feb 24	<b><i>Reading Week</i></b>	
L6	Mar3	Measuring Cognitive Abilities and Aptitude	
L7	Mar 10	Psychological Assessment and Mental Health	
L8	Mar 17	Psychological Measurement and Research Practices part 1	
L9	Mar24	Psychological Measurement and Research Practices part 2	
L10	Mar 31	Advanced Statistical Techniques in Psychological Measurement	
	Apr7	<b><i>Final Assessment</i></b>	

## Assigned Readings

### L1:

Syllabus

### L2:

Simms, L. J. (2008). Classical and modern methods of psychological scale construction. *Social and Personality Psychology Compass*, 2(1), 414-433

### L3:

The link below takes you to an open-source textbook chapter. This discusses reliability and validity. You can focus on reliability content for lecture 3 and validity content for lecture 4.

<https://opentextbc.ca/researchmethods/chapter/reliability-and-validity-of-measurement/>

### L4:

Flake, J. K., Pek, J., & Rehman, E. (2017). Construct validation in social and personality research: Current practice and recommendations. *Social Psychological and Personality Science*, 8(4), 370-378

### L5:

Chapter 1 - Personality Assessment

### L6:

Stoll, G., Rieger, S., Ludtke, O., Nagengast, B., Trautwein, U., & Roberts, B. W. (2017). Vocational interests assessed at the end of high school predict life outcomes assessed 10 years later over and above IQ and Big Five personality traits. *Journal of Personality and Social Psychology*, 113, 167-184.

Chapter 2 - Under Assessing Cognitive Abilities

### L7:

Chapter 3 - Under Psychological Assessment

Bornstein, R. F. (2017). Evidence-based psychological assessment. *Journal of*



*Personality Assessment*, 99, 435-445.

Carlson, E. N. (2015). Are clinicians asking the right questions? The role of metaperceptions as an assessment tool. *Clinical Psychology: Science and Practice*, 22(1), 25-28

American Psychological Association's Ethical Principles of Psychologists and Code of Conduct, Standard 9: Assessment (<http://www.apa.org/ethics/code/index.aspx?item=12>)

**LS:**

Chapter 4 - Under Multi-Method Approach

The link below takes you to an open-source textbook chapter on practical strategies for choosing measures.

<https://opentextbc.ca/researchmethods/chapter/practical-strategies-for-psychological-measurement/>

**L9:**

Flake, J. K., & Fried, E. I. (2019). Measurement schmeasurement: Questionable measurement practices and how to avoid them.

**L10:**

Yong, A.G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79-94