Psychology
UNIVERSITY OF TORONTO

PSY 202H1 Statistics II
RW 117
Tuesday & Thursday, 6:10PM – 9:00PM

Instructor and Teaching Assistant Information

Instructor:
Amanda Sharples, MA, Ph.D. Candidate
amanda.sharples@mail.utoronto.ca

Instructor Office hours:
Thursdays 4:00pm-5:00pm
Location: Sidney Smith 624

Teaching Assistants:

Buddhika Bellana
Yaelan Jung
David O'Neill
Veronica Yuk

ALL EMAILS SHOULD BE SENT TO: **Psy202summer@gmail.com**

TA Office hours: TBA
Location: SS581, ground floor, near east doors of cafeteria.

Course Description and Objective

PSY202 is a continuation of PSY201. We will discuss common statistical techniques used by researchers to analyze different types of data. During the semester you will learn how to run specific statistical procedures, both by hand and using SPSS software. You will also be taught how to choose an appropriate statistical test based on your research question, study design, and variables. Finally, you will be taught how to interpret these tests and report them in APA style. Throughout the class there will also be some discussion of research methods and how the methods we use to collect our data relate to the statistical tests we use to analyze our data. We will be using SPSS software for the labs and for examples in class. You are not required to purchase SPSS, and the student version does not necessarily include all features. SPSS is available on computers in SS581 during office hours and in the Sidney Smith computer lab (SS561). A schedule for the Sidney Smith computer lab is available here: http://lab.chass.utoronto.ca/ss.php. It is also available in and in Robarts Library.

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.

Course Resources

Required Readings: Gravetter, F. J. & Wallnau, L. B. (10th Ed). Statistics for the Behavioral Sciences. Thomson Wadsworth *Earlier editions (e.g., 9th) are fine.*

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

Ongoing course 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 Blackboard. I can't promise that I will be able to touch on every concern expressed in the feedback surveys. Ultimately, 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 attend one of the weekly office hours being held by the course instructor and teaching assistants. If you have a short question that can be answered via email, then please email the course gmail account. Before emailing, however, please check the course syllabus as most of the important information about the course can be found there. If you have a question that may require a longer explanation, please come to office hours instead of emailing as it will be much easier for the TA to explain this in person and it will give you the opportunity to ask more questions. If you are having trouble coming up with a study plan, you can look at the beginning of the text – they have some good tips. Please also feel free to contact the course instructor or teaching assistants.

Course Evaluation

Component	***Date***	***Weight***
Labs (4)	July 8th, July 14th, July 28th, August 4th	40% (10% each)
Midterm Exam	July 19th	25%
Final Exam	During Final Exam Period	35%

Labs: You will have to complete 4 labs for this course. These are designed to get you using the statistical tests you are being introduced to each week and to get you familiar with SPSS. Each lab will have you complete statistical analyses you recently learned using SPSS and report your results in APA style. Detailed instructions for each lab will be posted on Blackboard. All labs should be submitted via Blackboard by 11:59pm on the date they are due.

Policy on Lateness: For the labs, 10% will be deducted for each day (including weekends) the assignment is late, unless you provide valid documentation.

Exams: There will two cumulative exams over the course of the semester. The exams will be approximately 20% multiple choice, 80% conceptual questions and calculations. The midterm will be two hours long and the final exam will be three hours long. The midterm will be held during class and the final exam will be held during the final exam period. The final exam is cumulative, but will be heavily focused on material covered after the midterm.

Missed Exams. If you miss an exam, you must submit valid documentation within one week of the missed exam to the instructor or TA. Medical documentation must show that the physician was consulted **within one the day of the missed term test.** The form to be used for medical documentation may be found at the following web site: http://www.utoronto.ca/health/forms/medcert.gif. If your request is approved, your grade will re-weighted to compensate for the missed exam. **There are no make-up tests**.

Ensuring Fairness in Marking: Two steps will be taken to ensure fairness in the marking of your exams and assignments.

1. For the exams, quantitative methods will be used to evaluate the pedagogical quality of the multiple choice questions. Students will be given marks back for a question that is quantitatively proven to be substandard. That is, any question that students perform worse than chance at (in a question with five options, less than 20% of students getting the answer correct would be less than chance), will be considered of poor quality and students will be given marks for this question if they answered it incorrectly. Questions that are not multiple choice will be carefully examined both before and after the exam to ensure fairness.
2. Your submissions for the labs will be marked by 1 of 4 TAs. Although all the TAs will be given a clear marking rubric for each lab (which you will also be given prior to submitting the assignment), it is probable that some TAs will mark more-or-less harshly than the others. So, we will standardize marks across the TAs by following this process: (a) the marks for the labs will be statistically "standardized" within each TA, which means that marks will be rescaled so they have the same mean and standard deviation (specifically, a mean of zero and a standard deviation of 1 for marks assigned by each TA); (b) these standardized marks will be multiplied by the average standard deviation across the TAs and added to the pre-existing average mark across the TAs. Note that this is different from "curving," which is where the professor fixes the course marks around a target average; the process we will use will let the class *earn the average that they earned* by adding the pre-existing average back to every standardized value. Altogether, this process ensures that people whose labs are marked by difficult TAs are not disproportionately hurt by natural individual differences in evaluation[1].

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.

Academic Misconduct

As an instructor, I have taken many steps to ensure that students are graded fairly (see above). This is one way to ensure that students are evaluated based on their knowledge, skills, and abilities. Academic integrity is also essential to ensure that students are evaluated based on their knowledge, skills, and abilities. I expect students to maintain academic integrity in this course by only submitting their original work to me. 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

Lecture Schedule and Assigned Readings

I will try my best to stick to this outline, but changes may be made depending on how each lecture goes. Changes will be announced on Blackboard.

1 These measures to ensure fairness in marking have been adapted from a previous syllabus for a class taught by Dr. Elizabeth Page-Gould

Lecture	Date	Topics	Readings	Notes
L1	June 28	Introduction to the course *RM: Basic Experimental Design*	None	
L2	June 30	Introduction to Analysis of Variance *RM: Introduction To SPSS*	Ch. 12: 12.1 to 12.5	
L3	July 5	ANOVA - Post hoc tests Repeated-Measures Analysis of Variance *RM: APA Style: The Basics*	Ch. 12 & 13: 12.6 to 13.5	
L4	July 7	Two-Factor Analysis of Variance Part 1 *RM: Designing a Study: Things to Consider*	Ch. 14	***Lab 1 Due***
L5	July 12	Two-Factor Analysis of Variance Part 2 Correlations Part 1 *RM: Making Predictions and Interpreting Results*	Ch. 15: 15.1 to 15.4	
L6	July 14	Correlations Part 2 *Review for Midterm*	Ch. 15: 15.5	***Lab 2 Due***
	July 19	***Midterm test*** *(2 hours)*	*No lecture*	***Usual place/time. Test will begin at 6:15pm***
L7	July 21	Introduction to Regression 1 *RM: Discussing Limitations and Implications of your Research*	Ch. 16: 16. 1 to 16.2	
L8	July 26	Introduction to Regression 2 *RM: Open Science Practices*	Ch. 16: 16.2 to 16.4	
L9	July 28	The Chi-Square Statistic *RM: Presenting your Findings: Posters and Talks*	Ch. 17	***Lab 3 Due***
L10	Aug 2	The Binomial test Tests for Ordinal Data *RM: Careers in Psychology and Statistics*	Ch. 18 Appendix E (may carry over into lecture 11)	
L11	Aug 4	Choosing the right statistic *Review for Final Exam*	Handout	***Lab 4 Due***
		Final Exam (3 hours) ***During exam period***		