PSYC*1010*02, Course Outline: Winter 2021

General Information

DUE to the ongoing COVID-19 pandemic, this course is offered in an alternative format. Alternative Delivery Asynchronous – AD-A Remote: no day and time for class

Course Title: Making Sense of Data in Psychological Research

Course Description:
This course introduces research designs and quantitative approaches used in psychological science, with an emphasis on conceptual understanding. Specific topics include distributions, meta-analysis, confidence intervals and p-values, effect size, and regression, as well as the differences between descriptive, correlational, and experimental research designs.

Credit Weight: 0.5

Academic Department (or campus): Psychology

Semester Offering: Winter 2021

Class Schedule and Location: Asynchronous online

Instructor Information

Instructor Name: Dr. Tyler Bancroft
Instructor Email: tbancrof@uoguelph.ca (yes, tbancrof, not tbancroft)
Office location and office hours: Virtual, office hours by appointment

GTA Information

GTA Name: Larissa Panetta
GTA Email: lpanetta@uoguelph.ca

GTA Name: Briana Renda
GTA Email: rendab@uoguelph.ca

GTA Name: Dario Aspesi
GTA Email: daspesi@uoguelph.ca

Course Content

Specific Learning Outcomes:
1. Scientific literacy: An improved understanding of science and the scientific method as applied to the domain of psychology

2. Methodological literacy: An improved understanding of the research methods commonly used in psychology, their relative advantages and disadvantages, and common applications.
3. Statistical literacy (descriptive): An understanding of the principles and methods of basic descriptive statistics and their applications within psychology.
4. Statistical literacy (inferential): An understanding of the principles and methods of basic inferential statistics, underlying philosophical and mathematical constructs (e.g., assumptions), selection of appropriate tests.
5. Quantitative literacy: Improved quantitative skills, including the ability to construct and solve common formulae in statistics, to understand relevant notation, and an understanding of basic probability.

Lecture Content:

Week	What are we learning about?	What should I read?
1	Research design and basic statistical concepts	Chapter 1
2	Frequency distributions and visualization of data	Chapters 2 and 3
3	Descriptive statistics: Central tendency and variability	Chapter 4
4	Sampling and probability	Chapter 5
5	The normal curve, standardization, and z scores	Chapter 6
6	Hypothesis testing with z tests	Chapter 7
7	Confidence intervals and effect sizes	Chapter 8
8	Single-sample and paired-sample t-tests	Chapter 9
9	Independent-samples t-tests	Chapter 10
10	Correlation	Chapter 13
11	Regression	Chapter 14
12	Chi-squared tests	Chapter 15

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Quiz 1	Jan. 25th	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 1-2 (Outcomes 1, 2, 3)
Quiz 2	Feb. 8th	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 3-4 (Outcomes 1, 3, 5)
Quiz 3	Mar. 1st	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 5-6 (Outcomes 3, 4, 5)
Quiz 4	Mar. 15th	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 7-8 (Outcomes 3, 4, 5)
Quiz 5	Mar. 29th	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 9-10 (Outcomes 3, 4, 5)
Quiz 6	Apr. 8th	Best 5 out of 6 quizzes will be allocated 12% each	Knowledge and understanding of material from Weeks 11-12 (Outcomes 3, 4, 5)
Final exam	Exam period	35%	Cumulative exam covering material from entire course (Outcomes 1-5)
Research participation via SONA	Last week of class	5%	Outcomes 1, 2

Final examination date and time: Tues. April 27th 2021, 7-9 PM

Final exam weighting: 35%

Course Resources

Required Texts:
Nolan & Heinzen, Essentials of Statistics for the Behavioral Sciences 5th edition. Macmillan.
Other Resources:
Course lectures and quizzes/tests will be delivered through Courselink.

Course Policies

Grading Policies
All quizzes and tests must be completed by 11:59PM (Guelph time) on the assigned day. A mark of zero will be assigned if you do not do so. All quizzes and tests are open-book and you may use the textbook and any of your own course notes, but may not use other internet resources, communicate with others to obtain aid or information about quizzes/tests, or otherwise seek outside help. Doing so will constitute academic misconduct.

Course Policy regarding use of electronic devices and recording of lectures:
You may not disseminate, redistribute, modify, or otherwise make use of the materials in this course (including the lectures, quizzes, tests, and any other distributed material) in any fashion other than your own personal learning without explicit advance written permission from the instructor and any other copyright holders.

University Policies
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Disclaimer: Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website and circulated by email.
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Illness
The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.

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 April 12, 2021 . For regulations and procedures for Dropping Courses, see the [Schedule of Dates in the Academic Calendar](#).

Additional Course Information

Course instructors are allowed to use software to help in detecting plagiarism or unauthorized copying of student assignments. Plagiarism is one of the most common types of academic misconduct on our campus. Plagiarism involves students using the work, ideas and/or the exact wording of other people or sources without giving proper credit to others for the work, ideas and/or words in their papers. Students can unintentionally commit misconduct because they do not know how to reference outside sources properly or because they don't check their work carefully enough before handing it in. 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.

In this course, your instructor will be using Turnitin.com to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to prevent plagiarism in the College of Social and Applied Human Sciences.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.