

PSYCH 110: Applied Statistical Analyses in Psychology

Winter 2021 Syllabus

Course Information:

Professor: Dr. Zoë Francis

Lectures: Asynchronous (on your own time), new lectures posted Wednesday mornings.

Assignments/Quizzes/Exams: Asynchronous

Office hours (Zoom): Days and times to be determined in the first week.

Course Description:

This course covers the basic techniques of descriptive and inferential statistics and their applications to psychological research.

Methods of graphing, measures of central tendency, dispersion, and various parametric and distribution-free tests are included.



Contact Me:

Prof. Francis
email: zoe.francis@ufv.ca

I would like to get to know everyone who is on the other end of the screen! I hope to meet many of you during online zoom hours.

I also encourage you to chat with me and each other via the group discussion boards or by email. I am able to schedule online meetings with students as needed; email me to arrange.

I will respond to emails within 1-2 business days, and will check/respond to questions on the online discussion boards once each working day (Mon-Fri).

Course Textbook (Required):

Foster, G.C., Lane, D., Scott, D., Hebl, M., & Guerra, R. (2018). An Introduction to Psychological Statistics. Available at <https://open.umn.edu/opentextbooks/textbooks/709>.

This is a **FREE ONLINE** textbook. It is not sold at the UFV bookstore. If you would like a physical copy, you can pay to have one printed anywhere that offers printing.



Course Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Employ basic descriptive statistics, graphs, and tables to summarize behavioural data.
2. Explain the role of sampling distributions and z-scores in the logic of inferential statistics.
3. Apply the logic of hypothesis testing by translating psychological research questions into testable research hypotheses and articulating the appropriate null and alternative hypotheses.
4. Choose appropriate statistical analyses for the testing of psychological hypotheses.
5. Interpret the meaning of a p-value with respect to rejection or non-rejection of a null hypothesis and interpret p-values in publications.
6. Perform and interpret statistical hypothesis tests on behavioural data using Z-Scores and T-Statistics.
7. Analyze the results of psychological investigations that produce categorical data with the aid of a chi-squared test.



Course Schedule

Please note: This schedule is subject to minor revisions. Changes will be announced on Blackboard.

Week	Topic	Textbook Reading	Assessment
1 [Wed, Jan 6]	Course Introduction		
2 [Wed, Jan 13]	Intro to Statistics & Types of variables	Ch. 1	<i>Quiz-W2</i> Due: Tue, Jan 19th 11:59pm
3 [Wed, Jan 20]	Graphs, Distributions, & Measures of Central Tendency	Ch. 2 and 3	<i>Assignment-W3</i> Due: Tue, Jan 26th 11:59pm
4 [Wed, Jan 27]	Variability & Z-Scores	Ch. 3 and 4	<i>Quiz-W4</i> Due: Tue, Feb 2nd, 11:59pm
5 [Wed, Feb 3]	Midterm Exam #1		Midterm Exam Due: Tue, Feb 9th, 11:59pm
6 [Wed, Feb 10]	Z-scores and Probability	Ch. 5	<i>Assignment-W6</i> Due: Tue, Feb 23rd, 11:59pm
[Wed, Feb 17]	<i>Reading Week, No Class</i>		
7 [Wed, Feb 24]	Probability and Samples	Ch. 6	<i>Quiz-W7</i> Due: Tue, March 2nd, 11:59pm
8 [Wed, Mar 3]	Hypothesis Testing	Ch. 7	<i>Quiz-W8</i> Due: Tue, March 9th, 11:59pm
9 [Wed, Mar 10]	One-sample T-tests	Ch. 8	<i>Assignment-W9</i> Due: Tue, Mar 16th, 11:59pm
10 [Wed, Mar 17]	Midterm Exam #2		Midterm Exam Due: Tue, Mar 23rd, 11:59pm
11 [Wed, Mar 24]	Two-sample and paired t-tests	Ch. 9 and 10	<i>Assignment-W11</i> Due: Tue, Mar 30th, 11:59pm
12 [Wed, Mar 31]	Chi Square test	Ch. 14	<i>Assignment-W12</i> Due: Tue, April 6th, 11:59pm
13 [Wed, April 7]	Correlation & Intro to Other Tests	Ch. 12	<i>Quiz-W13</i> Due: Tue, April 13th, 11:59pm
April 21 - 23	Final Exam		Final Exam

Grading Overview:

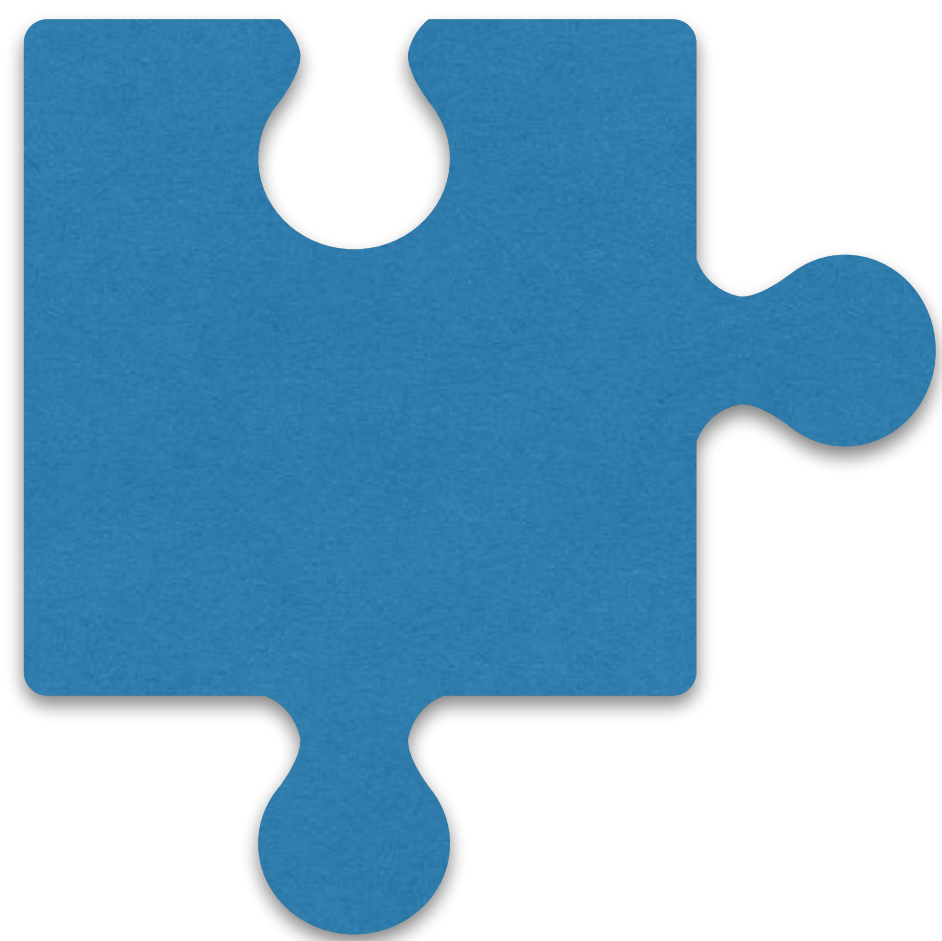
Assessment	% of Total	Due Date
Quizzes (2.5% x 5)	12.5	Tuesdays, 11:59pm (see above)
Assignments (2.5% x 5)	12.5	Tuesdays, 11:59pm (see above)
Midterm 1	25	Tue, Feb 9th, 11:59pm
Midterm 2	25	Tue, March 16th, 11:59pm
Final Exam	25	

Assignments & Evaluations

Assignments (5 × 2.5% each = 12.5%)

There are five short assignments that will help you practice applying the course content of that week. Assignments may involve: (i) applying that week’s concepts to a real-world situation, (ii) responding to short-answer questions, (iii) practicing a sequence of calculations.

Assignments are posted alongside that week’s lecture content. Each assignment is due the following Tuesday at 11:59pm.



Quizzes (5 × 2.5% each = 12.5%)

Online quizzes will also help you practice applying the course content discussed in that week. A quiz will typically involve between 5 to 15 questions (multiple-choice and/or calculation questions).

Like assignments, quizzes are posted alongside that week’s lecture content. Each quiz must be completed by the following Tuesday at 11:59pm.

Midterms and Final Exams (3 × 25%)

The two midterms and final exams are non-cumulative. Midterm 1 will cover material from the first third of the course, midterm 2 will cover material from the next third, and the final will cover the final third. However, note that the material that we cover this semester will build upon itself. It will be difficult to understand the material from later weeks without first establishing and understanding of the earlier material.

Exams may include multiple choice, short answer questions, and conducting statistical tests. More information about the exam format will be provided on MyClass prior to the exam.

ALL EXAMS, including the final exam, have flexible asynchronous timing. Each exam will be available for multiple days.



Letter Grades:

A+	90-100	B+	77-79	C+	67-69	D	50-59
A	85-89	B	73-76	C	63-66	F	BELOW 50
A-	80-84	B-	70-72	C-	60-62	I	Temporary grade

Navigating MyClass

Our MyClass page is organized using a week-by-week module format. Find each week's material by clicking on the appropriate link in the left sidebar. Everything that you need for Week 1 is available in the "Week 1" module. Everything that you need for Week 2 is available in the "Week 2" module (including lectures, assignments, links to quizzes, etc.).

What will I find inside each Week's Module?

Lectures. Each week will have 1 or 2 "lectures" available on MyClass. A lecture is typically comprised of multiple short components that you can work through at your own pace. A lecture may include (i) videos that I have recorded myself, (ii) YouTube videos or videos from other sources, (iii) links to other articles, (iv) activities or practice quizzes on external websites. All of the content in the "lectures" is required material; you will be expected to know the information for exams, quizzes, and assignments.

Assignments and Quizzes. Assignment instructions/information and the links to submit the assignment can all be found in the week's module. Links to quizzes will also be inside the relevant week's module.

Additional Materials (Optional): Some weeks will also include a folder of "optional" videos or linked materials. You are not required to watch/read these videos, and will not be tested on their contents. I typically include materials that I find especially interesting, or that have helpful explanations of difficult concepts that have also been discussed in the textbook or required lectures.



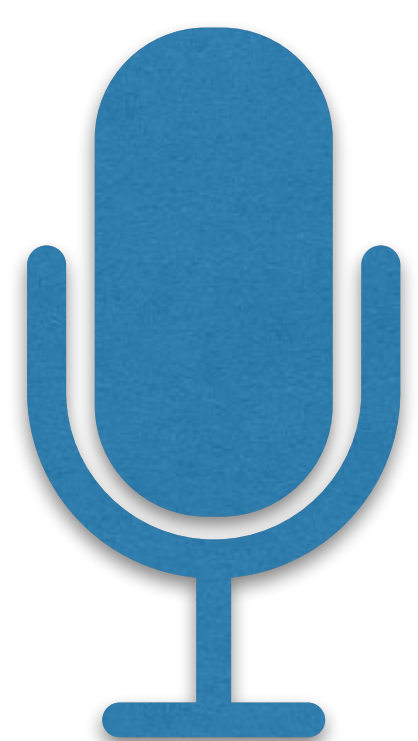
What else should I look for in MyClass, outside the weekly modules?

Announcements. You should also make note of the Announcements tab, where I will regularly be posting important updates (extra info about assignments, due-date reminders, etc.)

Course Resources/Info. This folder is where you can find the syllabus, the academic integrity policy, the "declaration of absence" form, links to useful resources, and other important links.

My Grades. See your grades, what you already submitted, and what assignments are upcoming.

Zoom Tutorial Hours



** Times will be scheduled based on responses to the Week 1 survey. Please complete the survey, and then regularly check the Announcements page for more information!

Zoom hours are the **optional, synchronous, online** time to (i) meet other students, (ii) meet the prof, (iii) ask questions about course content, (iv) discuss upcoming assignments, (v) complete extra practice questions, and (vi) go over the previous week's quiz or assignment. Like tutorials and office hours, these sessions are extra, scheduled times to ask questions and improve/reinforce your understanding of course material. I highly recommend attending, especially if you have questions or would like some extra practice or help.

Attending online zoom hours is entirely optional. If you are unable to attend, check out the discussion boards or email me your questions instead. I am also able to schedule individual meetings with students - please send me an email.

Course Policies

Late Policy:

Across the semester, you may hand in up to **three** 2.5% assessments (i.e., quizzes, assignments, or a combination of the two) **up to 4 days late** with no penalty. In other words, three times throughout the semester, you can choose to hand in an assignment or complete a quiz by 11:59pm Saturday instead of by 11:59pm on Tuesday, with no negative effect on your grade.

Quizzes will NOT be available after 11:59pm Saturdays, no further extensions. Late assignments will also **not be** accepted after the four-day grace period.

After a student uses up their three late assignments/quizzes, any additional late quizzes/assignments submitted during the 4 day grace period will be accepted, but with 20% deducted per day.

Midterms and the final exam will NOT be accepted late, and do not fall under this policy.

Excused Absences (Excused Missing/Late Work):

If an assignment is missing or late due to an illness or injury, please **complete the Student Declaration of Absence form**, available in Course Info/Resources, and email me as soon as possible (zoe.francis@ufv.ca).

Students are expected to make up any missed work within 3 days of returning to classes after illness, and within a week of bereavement leave. For any excused absences, please contact me with any questions and to arrange accommodations.

If a quiz is missed due to an excused absence, that grade will be reweighed to the next exam. Exams may be rescheduled only due to excused absences.

Academic Integrity & Plagiarism Policy:

It is everyone's responsibility to pay attention to academic integrity. Plagiarizing "by accident" or "not knowing that it is plagiarism" is NOT an excuse. One of the most common forms of plagiarism is when a student uses the *exact words* of someone else, does not put quotes around the words, and then ends the phrase with the author and year in parentheses. Unfortunately, even though this includes a citation, it is plagiarism.

Make sure you are familiar with the plagiarism and academic integrity policies at UFV. The Plagiarism and Academic Integrity policy is available in the "Resources" section of MyClass.

Privacy and Social Media:

Please support and respect everyone's full participation in this course. Do not share screenshots or recordings from this course (from either MyClass or Zoom sessions) to social media. Doing so may be considered an academic offence or may infringe copyright. If you are unsure whether you can 'share' materials from this course with friends, classmates, or on social media, please ask the professor first.

University Resources

English Language Services

Services are open to all UFV students. Students will receive support from an English as an Additional Language (EAL) faculty member with reading, writing, listening, and speaking skills to help with any UFV course they are taking. ELS support sessions are private and confidential. The goal is to help you understand expectations for course activities and assignments and to improve your language, study, and cross-cultural skills to help you succeed through personalized, one-on-one support sessions with ELS Department faculty. Students are able to book online appointments.

For further info or to book an appointment: <https://ufv.ca/esl/online-help-centre/general-els-support/>

Centre for Accessibility Services

The Centre for Accessibility Services operates as the central contact point for students with disabilities at UFV. The office focuses on providing accommodations and services to help meet academic demands, while promoting student responsibility and self-advocacy. Students who have been diagnosed with a mental, physical, sensory, or neurological impairment, or learning disorder (either temporary or permanent) that restricts their ability to perform classroom activities should reach out to CAS. Any accommodations for disabilities or learning disorders must be arranged through the Centre for Accessibility Services.

For more information or to register for support, contact: <https://www.ufv.ca/accessibility/>

Academic Success Centre

The Academic Success Centre (ASC) offers FREE student-focused tutoring, workshops, online resources and support programs to develop students' academic skills and knowledge. Peer tutors work with students on personal learning strategies and approaches, and provide writing and subject-area support under the supervision of the Learning Strategist and the Coordinator of the Academic Success Centre.

<https://www.ufv.ca/asc/>

Priority Access to Student Support (PASS)

The UFV Priority Access to Student Supports (PASS) program connects students to the supports and resources that may help them to increase their chance of success. Such assistance may include putting students in touch with an academic advisor, financial aid, a counsellor or another resource. If your instructor is concerned about your progress, he/she may refer you to PASS. The referral is treated confidentially and is sent because your instructor cares about your progress and success in this course. Your response to PASS is entirely voluntary. If you do not wish your instructor to make a referral to PASS on your behalf, please let them know by email. Visit ufv.ca/studentservices/PASS for more information.

** Note that all course instructors are *required* to refer students to PASS who indicate that they have or might have COVID-19.

10 Ways to Succeed: Student Responsibilities

1. **Learn by doing.** When you are watching lecture content, follow along, pause the videos when needed, and take notes! When you are reading the textbook, follow along with the problems yourself and take notes! The best way to learn statistics is by doing and practicing. Do the practice questions in the textbook, any posted practice quizzes and activities, as well as your own homework and quizzes. You can also practice making your own problems, and see if you know how to solve them.
2. **Stay on track.** Make a habit of keeping up with course content every week. Write down all assignment and quiz due-dates (from this syllabus) in a calendar.
3. **Check the announcements page regularly.** The “Announcements” page in MyClass will often have important announcements and updates. It is your responsibility to check the website and keep up with course instructions and notices. Make sure your notifications are set so that you know when something new is posted to the course.
4. **Start assignments early.** Aim to submit all of the assignments and quizzes by the Friday BEFORE they are due, instead of waiting until Tuesday. Make sure to at least open and start the assignments early - I might not be able to answer your question instantly, so definitely do not wait until the day an assignment is due to start it!
5. **Spend the time.** The UFV calendar recommends that students spend between 6-9 hours per week, on average, working on a standard 3 credit course. Your time should be spent on reading and taking notes on the lecture and text chapter; completing assignments; and studying for tests.
6. **Ask questions.** Write down questions that you have while watching the lectures and reading the textbook. If your question was not answered, ask your question via email, the discussion board, or during a zoom hour.
7. **Ask for help early.** If you are struggling, please reach out for help! You can email me (zoe.francis@ufv.ca) or email one of the many Centres listed on the previous page (English Language Services, Academic Success Centre). Try to ask for help earlier rather than later; it is easier to find solutions to problems proactively than reactively, and it's more difficult to help someone who has fallen far behind.
8. **Plan for technological difficulties.** Do not wait until the last minute to submit assignments or take a quiz. Do not wait until the last minute to email me a question or ask for help. Having access to internet/wifi is your responsibility, and “not having wifi” is *not* an acceptable excuse. Plan ahead, and create a backup plan for accessing the internet! (E.g., do you have a neighbour, library, or coffee shop with wifi nearby?)
9. **Understand and follow the Academic Integrity policy.** Do not share work or answers with other students. Never copy-and-paste *anything* that you submit for grades (not from the lecture slides, not from other students, not from your own past work, not from the internet, not from the textbook). Plagiarism is a very easy way to lose marks, but is entirely avoidable.
10. **Take care of yourself!** Lastly, but most important, is to take care of yourself this semester! Try to find balance between your course obligations and the rest of your life. Remember to sleep! Remember to eat! Remember to relax, take breaks, and do things that you enjoy. Do the best you can, but be kind to yourself. University is a journey, not a sprint. :)

